

**100 ARLINGTON STREET
BOSTON, MASSACHUSETTS**

**SELF-IMPLEMENTING PLAN FOR THE REMOVAL AND
DISPOSAL OF BUILDING-RELATED
POLYCHLORINATED BIPHENYLS**

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**EH&E Project #18257
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LIST OF ABBREVIATIONS AND ACRONYMS

ACM	asbestos-containing material
BWH	Brigham and Women's Hospital
CFR	Code of Federal Regulations
EH&E	Environmental Health & Engineering, Inc.
EPA	U.S. Environmental Protection Agency
HEPA	high efficiency particulate air
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
MS	matrix spike
MSD	matrix spike duplicate
OSHA	U.S. Occupational Safety and Health Administration
TCG	TCG HealthCare System, Inc.
PCB	polychlorinated biphenyl
PM ₁₀	particulate matter that is 10 microns or smaller in size
ppm	parts per million
QC	quality control
RCRA	Resource Conservation and Recovery Act
RPD	relative percent difference
Site	74 Fenwood Road, Boston, Massachusetts
TCLP	Toxicity Characteristic Leaching Procedure
TSCA	Toxic Substances Control Act
µg/m ³	micrograms per cubic meter

1.0 SUMMARY

Environmental Health & Engineering, Inc. (EH&E) conducted a building survey and assessment for The Congress Group (TCG) at the 100 Arlington Street, Boston, Massachusetts (the Building). The Building is scheduled for window replacement and brick re-pointing beginning summer 2012. The sample results indicate the presence of polychlorinated biphenyls (PCBs) in exterior caulk associated with two vertical caulk joints and at windows on the east elevation (brick façade) at concentrations above the allowable limits specified by the U.S. Environmental Protection Agency (EPA) in the Toxic Substances Control Act (TSCA) regulations. Some of this caulk is also a regulated asbestos-containing material (ACM); all of the window caulk is in contact with ACM caulk from which it cannot be readily segregated.

In response to the sampling results, TCG contracted EH&E to develop and submit an abatement protocol to address the presence of unauthorized PCBs. This work plan was prepared to support an application for a Title 40 Code of Federal Regulations (CFR) self-implementing disposal plan, as outlined at 40 CFR 761.61(a) for disposal of exterior caulking and adjacent porous materials impacted by non-liquid PCBs.

The work will include the removal of the regulated PCB caulking and disposal of the caulk as a mixed PCB bulk product waste and ACM waste in accordance with 40 CFR 761.62(b) and adjacent porous and non-porous building materials as a PCB bulk remediation waste in accordance with 40 CFR 761.61(a). Prior to removal and disposal, EH&E will pre-characterize representative limestone and masonry products in contact with regulated caulk (see Section 5). All PCB bulk product waste and PCB bulk remediation waste generated by this project will be disposed in an appropriate RCRA Title C hazardous materials landfill as a TSCA-regulated bulk product waste.

2.0 BUILDING AND CASE HISTORY

The 100 Arlington Street Building is located in downtown Boston, and was formerly the Renaissance Charter School. It is undergoing complete renovation for commercial and residential use. This removal and disposal plan focuses on limited portions of the building exterior where regulated concentrations of PCBs were detected in building materials (Figures A.1 through A.3 in Appendix A).

The Building includes 11 stories, a mechanical penthouse and a basement, and is currently vacant and undergoing renovation. The Building was constructed in the early 1900's. The facility was previously used as the Renaissance Charter School. The east elevation of the Building is scheduled for brick re-pointing and window replacement beginning summer and fall 2012. The property is located in a mixed use urban neighborhood in downtown Boston and is bounded by Arlington, Stuart and Piedmont Streets.

As part of a building hazardous materials survey, TCG contracted EH&E to perform a building investigation to identify suspect materials and conduct an assessment for PCBs that included sampling and analysis of caulking, brick, mortar, and limestone.

Regulated concentrations of PCBs were detected in exterior caulk associated vertical joints between the limestone cornerstones and the brick façade at the east elevation of the building and a limited number of repair locations on the brick facade. In addition, regulated concentrations of PCBs were detected in exterior caulk associated with windows at the east elevation (brick façade) and at the rooftop penthouse. At the windows, PCB-containing caulk abuts the metal window frame, the brick façade, and a limestone sill. Total PCB concentrations in caulk ranged between 121 and 1290 ppm.

Sample locations are illustrated in figures located in Appendix A.

3.0 SAMPLING PROGRAM RESULTS AND CONCLUSIONS

Summaries of the analytical results are presented in Tables 3.1 – 3.3. Laboratory reports are included in Appendix B. Sample locations are illustrated in the figures in Appendix A.

3.1 SOURCE MATERIAL CHARACTERIZATION

From February 28 to April 13, 2012, EH&E collected bulk samples of suspect PCB-containing building materials located on the exterior of the Building. In particular, EH&E focused on exterior locations to be impacted by window replacement (the entire building) and re-pointing of brick (east elevation only). Evaluation of window caulk at representative locations on all faces of the Building indicated that regulated concentrations of PCBs in caulk is only associated with the east elevation of the building. This face of the building is the only one that has a brick façade. The other three elevations are sheathed in limestone.

At the east elevation, water intrusion associated with the deteriorating brick façade is a probable reason for the presence of an additional caulk layer which contains regulated concentrations of PCBs. All of the window types at the building have an older layer of caulk, possibly original to the building, which is brittle, black and an ACM. At the windows on the east elevation, either grey or tan pliable caulk overlies the black caulk. This layer likely represents a repair and this caulk is not present at the three limestone faces of the Building. The grey and tan caulks contain regulated concentrations of PCBs. All of the windows have an overlying layer of green caulk that was installed in the 1990's when new metal panning was installed over existing window frames at all faces of the building. This caulk only contains PCBs where it contacts the source caulk at the east elevation.

During the building survey, EH&E performed a thorough investigation to identify suspect PCB-containing caulking and sealants used the Building facade. EH&E collected samples in a manner to investigate the installation and application of the caulking materials, including an evaluation of any evidence indicating caulking replacement or repair work.

EH&E collected a total of 8 samples of grey and 4 samples of tan caulk at window locations and 2 samples of grey caulk at vertical joint and miscellaneous repair locations. Total concentrations of PCBs ranged from 121-1190 ppm in the grey caulk and 469-1290 ppm in the tan caulk. The primary Arochlors detected were 1248 and 1254, with 1260 detected only in the sample of repair caulk located on brick and metal flashing. Analytical results are provided in Table 3.1.

Table 3.1 Polychlorinated Biphenyls in Exterior Caulk from East Elevation, 100 Arlington Street, Boston, Massachusetts				
Sample ID	Description	Arochlor 1248 (ppm_w)	Arochlor 1254 (ppm_w)	Total
February 28, 2012				
130579	13A—grey pliable caulk adjacent to brick	628	367	995
130589	11A—grey pliable caulk adjacent to brick	262	299	561
130590	11A—green caulk in contact with grey caulk	45.9	ND (<2.59)	45.9
130594	7A—grey pliable caulk adjacent to brick	344	255	599
130605	Duplicate 130594	304	439	743
130595	6D—grey pliable caulk adjacent to brick	265	188	453
130603	4A—grey pliable caulk adjacent to brick	209	223	432
130604	Duplicate 130603	1190	ND (<44.4)	1190
130602	4A—green caulk in contact with grey	146	ND (<11.3)	146
130583	13B—tan pliable caulk adjacent to brick	1290	ND (<47.6)	1290
130584	13B—green caulk in contact with tan caulk	211	ND (<24.2)	211
130587	9B—tan pliable caulk adjacent to brick	184	285	469
130599	5B—tan pliable caulk adjacent to brick	458	322	780
130600	2B—tan pliable caulk adjacent to brick	1260	ND (<49.6)	1260
130576	Penthouse—grey pliable caulk adjacent to limestone sill	ND (<8.62)	128	128
March 15, 2012				
129056	3E—grey caulk adjacent to brick	121	ND (<7.96)	121
129058	3D—grey caulk adjacent to brick	93.8	52.4	146.2
March 27, 2012				
132354	Grey caulk vertical caulk joint, near 4A	487	ND (<45.6)	487

Table 3.1 Continued				
Sample ID	Description	Arochlor 1248 (ppm _w)	Arochlor 1254 (ppm _w)	Total
April 13, 2012				
132794	Grey caulk, similar appearance to vertical caulk joint, on brick and metal flashing at corner of 'H'	ND	685 218*	903
ppm _w parts per million by weight ND not detected ¹ PCB concentration analysis performed by Alpha Analytical, Westborough, MA state, using U.S. Environmental Protection Agency (EPA) method 8082 (GC/ECD). ² Aroclor 1016, 1221, 1232, 1242, and 1260 also tested. All results below reporting levels, unless noted. * Arochlor 1260 detected.				

3.2 POROUS MATERIALS

Subsequent to the discovery of PCBs in the caulk, EH&E conducted sampling and analysis of PCBs in the porous materials in contact with the caulk. Brick and limestone were found to be impacted by PCBs in the caulk. The results of porous materials testing are included in Table 3.2. All samples were extracted/analyzed in accord with EPA Methods 3540C/8082. EH&E utilized the EPA's *draft* Region 1 *Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs) Revision 4, May 5, 2011*) to collect all porous materials samples. Bulk samples of porous materials adjacent to each source material were composite samples; representing a minimum of four representative discrete samples. The composite porous samples collected were limited to a one half inch (1/2") depth. Distances from the caulk are indicated in Table 3.2.

At most of the limestone sill locations, in place metal panning prevented sampling immediately adjacent to the caulk, so samples were collected at a distance of approximately 0.75 inches from the caulk bead. Because the concentrations at some of these locations exceeded 1 ppm total PCBs and at most concentrations approached 1 ppm at this distance from the caulk, the sills are scheduled for disposal as PCB Bulk Remediation Waste. Of the nine limestone samples collected, concentrations of PCBs exceeded 1 ppm and were less than 10 ppm at five locations and approached the 1 ppm limit at two additional locations.

EH&E collected samples of limestone cornerstones immediately adjacent to the vertical caulk bead (within 0.5") and at distances of 1" and 2" from transition joint. These samples were collected at the third floor east roof location, which is the only location currently accessible. Immediately adjacent to the caulk, the total PCB concentration was 15 ppm. Concentrations decreased with increasing distances from the vertical caulk bead.

Table 3.2 Polychlorinated Biphenyls in Porous Materials Adjacent to Exterior Caulk from East Elevation, 100 Arlington Street, Boston, Massachusetts						
Sample ID	Description	Aroclor 1232 (ppm_w)	Aroclor 1248 (ppm_w)	Aroclor 1254 (ppm_w)	Aroclor 1260 (ppm_w)	Total
February 29, 2012						
130606	13A Brick adjacent to grey caulk	1.52	ND (<0.197)	ND (<0.295)	ND (<0.197)	1.52
130607	13B Brick adjacent to tan caulk	6.78	ND (<0.228)	ND (<0.342)	ND (<0.228)	6.78
130608	13B Mortar adjacent to tan caulk	ND (<0.317)	3.13	ND (<0.317)	ND (<0.211)	3.13
130609	11A Brick adjacent to grey caulk	ND (<0.289)	1.75	ND (<0.289)	ND (<0.193)	1.75
130610	7A Brick adjacent to grey caulk	ND (<0.285)	2.19	ND (<0.285)	ND (<0.190)	2.19
March 15, 2012						
129047	4A Brick adjacent to grey caulk	ND (<0.104)	1.31	ND (<0.104)	ND (<0.0693)	1.31
129050	5B Brick adjacent to caulk	ND (<0.0551)	1.44	ND (<0.0551)	ND (<0.0367)	1.44
129051	Duplicate 129050	ND (<0.120)	2.53	ND (<0.120)	ND (<0.0802)	2.53
129052	6D Brick adjacent to caulk	ND (<0.297)	3.11	ND (<0.297)	0.290	3.40
129053	9B Brick adjacent to caulk	ND (<0.0604)	0.557	0.628	0.247	1.432
129054	Penthouse brick adjacent to grey caulk	ND (<0.0585)	0.733	ND (<0.0585)	ND (<0.039)	0.733
129055	Penthouse limestone adjacent to grey caulk	ND (<0.054)	ND (<0.036)	0.335	0.680	1.015
129057	3E Brick adjacent to caulk	ND (<1.020)	12.7	ND (<1.020)	ND (<0.678)	12.7
129059	3D Brick adjacent to caulk	ND (<0.280)	1.84	0.657	ND (<0.187)	2.497
129060	3B Brick adjacent to caulk	ND (<0.119)	2.070	ND (<0.119)	ND (0.0794)	2.070
129061	Penthouse brick adjacent to grey caulk	ND (<0.0594)	0.507	ND (<0.0594)	ND (<0.0396)	0.507

Table 3.2 Continued

Sample ID	Description	Aroclor 1232 (ppm _w)	Aroclor 1248 (ppm _w)	Aroclor 1254 (ppm _w)	Aroclor 1260 (ppm _w)	Total
March 27, 2012						
132337	4A Limestone sill; 0.75" from grey caulk	ND (<0.0538)	0.803	0.305	ND (<0.0358)	1.108
132339	3B Limestone sill adjacent to grey caulk	ND (<0.110)	1.790	ND (<0.110)	ND (<0.0737)	1.790
132340	3B Exterior brick, 1.5" from grey caulk	ND (<0.0554)	1.540	0.491	0.198	2.229
132341	5B Limestone sill; 0.75" from tan caulk	ND (<0.055) 0.245*	ND (<0.0367)	ND (<0.055)	ND (<0.0367)	0.245
132342	5B Brick; 1.5" from tan caulk	ND (<0.280)	3.060	1.830	0.833	5.723
132343	13B Limestone sill; 0.75" from tan caulk	ND (<0.295)	0.822	ND (<0.295)	ND (<0.197)	0.822
132344	13B Brick; 1.5" from tan caulk	ND (<0.0542)	0.916	0.301	0.163	1.38
132345	13A limestone sill; 0.75" from grey caulk	ND (<0.0544)	0.242	0.122	ND (<0.0363)	0.364
132346	11A limestone sill; 0.75" from grey caulk	ND (<0.0562)	ND (<0.0562)	ND (<0.128)	ND (<0.0851)	ND
132450	9B limestone sill: 0.75" from tan caulk	ND (<0.0569)	0.701	0.326	ND (<0.038)	1.027
132452	7A limestone sill; 0.75" from grey caulk	ND (<0.267)	3.240	ND (<0.267)	ND (0.178)	3.240
April 13, 2012						
132795	East roof, brick adjacent to grey caulked transition joint, 0-0.5" depth core composite, immediately adjacent to caulk bead	ND (<0.105)	ND (<0.0698)	ND (<0.105)	1.67	1.67
132796	East roof, brick adjacent to grey caulked transition joint, 0-0.5" depth core composite, 1" from caulk	ND (<0.0560)	ND (<0.0373)	ND (0.0560)	ND (<0.0373)	ND
132797	East roof, brick adjacent to grey caulked transition joint, 0-0.5" depth core composite, 2" from caulk	ND (<0.0549)	ND (<0.0366)	ND (<0.0549)	ND (<0.0366)	ND

Table 3.2 Continued

Sample ID	Description	Aroclor 1232 (ppm _w)	Aroclor 1248 (ppm _w)	Aroclor 1254 (ppm _w)	Aroclor 1260 (ppm _w)	Total
April 13, 2012 (continued)						
132798	East roof, brick adjacent to grey caulked transition joint, 0-0.5" depth core composite, 2" from caulk	ND (<0.0523)	ND (<0.0348)	ND (<0.0523)	ND (0.0348)	ND
132799	East roof, mortar adjacent to grey caulked transition joint, 0-0.5" depth core composite, immediately adjacent to caulk bead	ND (<1.14)	13.5	6.5	ND (<0.759)	20.0
132800	East roof, mortar adjacent to grey caulked transition joint, 0-0.5" depth core composite, 1" from caulk	ND (<0.338)	0.270	ND (<0.338)	ND (<0.225)	0.270
132801	East roof, mortar adjacent to grey caulked transition joint, 0-0.5" depth core composite, 2" from caulk	ND (<0.165)	ND (<0.110)	ND (<0.165)	ND (<0.110)	ND
132802	East roof, limestone adjacent to grey caulked transition joint, 0-0.5" depth core composite, 2" from caulk	ND (<0.0524)	0.107	ND (<0.0524)	ND (<0.035)	0.107
132803	East roof, limestone adjacent to grey caulked transition joint, 0-0.5" depth core composite, 1" from caulk	ND (<0.0524)	0.187	ND (<0.0524)	ND (<0.035)	0.187
132804	East roof, limestone adjacent to grey caulked transition joint, 0-0.5" depth core composite, 1" from caulk	ND (<0.053)	0.199	ND (<0.053)	ND (<0.353)	0.199

Table 3.2 Continued						
Sample ID	Description	Aroclor 1232 (ppm_w)	Aroclor 1248 (ppm_w)	Aroclor 1254 (ppm_w)	Aroclor 1260 (ppm_w)	Total
April 13, 2012 (continued)						
132805	East roof, limestone adjacent to grey caulked transition joint, 0-0.5" depth core composite, immediately adjacent to caulk bead	ND (<1.020)	15.0	ND (<1.020)	ND (<0.681)	15.0
ppm _w parts per million by weight ND non-detect ¹ PCB concentration analysis performed by Alpha Analytical, Westborough, MA state, using U.S. Environmental Protection Agency (EPA) method 8082 (GC/ECD). ² Aroclor 1016, 1221, 1232 and 1242 also tested. All results below reporting levels, unless noted. * Aroclor 1242 detected						

From February 29 to April 13, 2012, EH&E collected 20 brick and mortar samples within 0.5" of the caulk beads at the windows and vertical joint to evaluate the extent of PCBs. Thirteen samples of the brick and mortar contained PCBs at concentrations greater than 1 ppm and less than 10 ppm; at three additional locations (one window location and two vertical caulk bead locations) concentrations exceeded 10 ppm as shown in Table 3.1. Additional samples were collected at greater distances and at distances of up to 1.5" from the caulk, concentrations at these locations exceeded 1 ppm at some locations.

EH&E also collected ten samples of the second row of bricks and mortar (as separate samples) adjacent to the windows at six locations. These samples were collected at an interval in the second brick and mortar that represented the closest point to the plane of the caulk bead. No PCBs were detected in these samples, and as indicated in Table 3.3 all detection levels were well below the 1 ppm criterion for unrestricted reuse.

Table 3.3 Polychlorinated Biphenyls in Porous Materials, Second Row of Bricks and Mortar from Exterior Caulk from East Elevation, 100 Arlington Street, Boston, Massachusetts			
Sample ID	Description	Aroclor 1248 (ppm_w)	Aroclor 1254 (ppm_w)
March 15, 2012			
129048	4A Second row brick—left side	ND (<0.0372)	ND (<0.0558)
129049	4A Second row brick— right side	ND (<0.039)	ND (<0.0585)
April 13, 2012			
132806	Fifth floor, east face of building, second course of mortar away from window frame, right side of south window,”	ND (<0.166)	ND (<0.111)
132807	Fifth floor, east face of building, second course of brick away from window frame, right side of south window	ND (<0.0539)	ND (<0.0359)
132808	Fifth floor, east face of building, second course of mortar away from window frame, left side of south window,	ND (<0.160)	ND (<0.107)
132809	Fifth floor, east face of building, second course of brick away from window frame, left side of south window,	ND (<0.054)	ND (<0.0362)
132810	Third floor, north face of “H”, second course of mortar away from window frame, left side of stairwell window	ND (<0.164)	ND (<0.109)
132811	Third floor, north face of “H”, second course of brick away from window frame, left side of stairwell window	ND (<0.0542)	ND (<0.0362)
132812	Fifth floor, east face of building, second course of mortar away from window frame, right side of north window	ND (<0.583)	ND (<0.389)
132813	Fifth floor, east face of building, second course of brick away from window frame, right side of north window	ND (<0.0551)	ND (<0.0367)
ppm _w parts per million by weight ND non-detect ¹ PCB concentration analysis performed by Alpha Analytical, Westborough, MA state, using U.S. Environmental Protection Agency (EPA) method 8082 (GC/ECD). ² Aroclor 1016, 1221, 1232, 1242, 1248, and 1260 also tested. All results below reporting levels, unless noted. * Aroclor 1242 detected. 1C: Confirmation concentration reported from first column quantification. 2C: Confirmation concentration reported from second column quantification. e: Indicates concentration exceeded calibration range for the analyte. D: Surrogate recovery not completed due to high dilution factor required to analyze sample.			

3.3 OVERVIEW OF ABATEMENT GOALS

At a minimum, the abatement activities will involve the removal and proper disposal of specified PCB-containing materials that contain levels of PCBs greater than the 1 ppm for unrestricted reuse. The removal and disposal project will be performed in compliance with the EPA TSCA requirements and protect public health and the environment.

Materials that are classified as PCB remediation or bulk product waste will be disposed in compliance with federal and state regulatory requirements at a TSCA/RCRA Title C facility licensed to accept these wastes.

To date, accessible portions of the brick façade at the east elevation of the building have been evaluated. In July 2012 swing staging will be erected at the building to allow full pre-characterization of porous materials prior to removal efforts that will be conducted contemporaneously with the re-pointing work. The proposed sequence of work and scope of pre-characterization testing are discussed in subsequent sections of this document.

4.0 REGULATIONS, PERMITS, AND QUALIFICATIONS

The contractor hired to perform the removal and disposal of the PCB-containing materials at the Building shall be responsible for obtaining all permits necessary to execute work conducted at the Building. The contractor shall be responsible for adhering to all applicable federal, state, and local rules and regulations including, but not limited to, those from the EPA, the Massachusetts Department of Environmental Protection, the U.S. Occupational Safety and Health Administration (OSHA), and the Boston Fire Department. In addition, the contractor will certify compliance with the requirements of this remediation plan and any conditions of approval required by EPA.

The contractor shall conform to all stipulations and permits identified in the contract bid documents, including any conditions set forth in the EPA approval. Where a conflict arises between regulations, the contractor shall adhere to the most stringent regulation. The contractor shall also confer with the project environmental consultant to resolve any conflict between the project plans and the removal procedures.

4.1 FIRE SAFETY AND EMERGENCY ACTION PLANS

The contractor will prepare emergency action and fire prevention plans that are fully compliant with all applicable regulations prior to the commencement of removal activities. For abatement projects, the plans must at a minimum include:

- Emergency escape procedures and routes.
- The procedure for announcing emergencies.
- The procedures to account for all employees after evacuation.
- The rescue and medical duties of personnel.
- A list of all major workplace fire hazards.
- The names and/or job titles of people responsible for the maintenance of the fire prevention equipment.
- The name of the person in charge of any fuel on the job.
- The names and/or job titles of people to be contacted for information about the job.
- Hot work permit procedures, if necessary.

4.2 STANDARD OPERATING PROCEDURES

TCG requires that the contractor prepare a written work plan and health and safety plan for abatement work performed at the Building. The two plans must ensure maximum protection of workers, visitors, and employees from PCB exposure and must prevent the release of PCBs or PCB-laden dust into the environment. These procedures should include, but are not limited to the following:

- Engineering controls and work practices to minimize airborne contamination into the work area and to prevent the spread of such contamination outside the work area. These controls and practices instituted during abatement activities must keep workers' exposures to PCBs below the permissible exposure limit and ensure no release of PCBs from the work area.
- Directions regarding pre-cleaning of the work area with a high efficiency particulate air (HEPA)-filtered vacuum.
- Specifications for sufficient and proper protective clothing and respiratory protection equipment for entrance into the work space from the outside, as may be required by OSHA regulations.
- Specifications for safe work practices in the workplace and exclusion of eating, drinking, smoking, or in any way breaking the respiratory protection, if respirators are required.
- Removal methods that minimize the amount of airborne dust generated from abatement activities.
- Specifications regarding end of work shift cleaning procedures.
- Specifications regarding the handling, storage, transport, and disposal of all appropriately classified PCB waste in a manner that minimizes exposure and that complies with federal, state, and local regulations regarding PCBs.

- Specifications identifying disposal sites for mixed PCB/ACM waste.
- Specifications regarding possible contingency plans pertaining to accidental spills and/or contamination in the work area or outside the work area.
- Mandatory and proper use of decontamination facilities when exiting the work area.
- Directions regarding the cleaning of work areas following abatement procedures.
- Supervision of work by a competent person.

In addition, the submitted work plan should provide sufficient detail to describe specific plans and actions. Moreover, where applicable, the work plan may reference this document, but will still need to be of sufficient detail in its descriptions.

4.3 TRAINING AND CERTIFICATION

All personnel performing abatement activities at the Building must have all the required training, medical examinations, and respirator fit testing (if required) as specified by OSHA. The contractor must at all times have a competent manager at the job site. Site-specific hazards and hazards associated with the handling and disposal of PCB products must be effectively communicated to the contractor's staff to minimize potential exposures. Completion of a Hazard Communication program in conformance with the elements of 29 CFR 1926.59 is required. In addition, the contractor must provide proper training and equipment for all safety-related issues. Please refer to Section 13 for more details on the health and safety requirements.

4.4 CONTRACTOR QUALIFICATIONS

The contractor shall demonstrate the following minimum requirements and competencies in accordance with the requirements specified by TCG.

- Experience in surface cleaning, removal, and disposal of PCB-contaminated non-industrial facilities.

- Experience in the abatement and disposal of ACMs is a requirement for abatement of caulking.
- Maintain and operate a fully functioning health and safety program dealing with the cleanup of hazardous materials and substances in or on commercial real estate.
- Maintain sufficient equipment, materials, and staff to complete the scope of work as outlined in this specification. A complete list of permanent staff, equipment, and materials shall be provided in the bid submission.
- Knowledge of the federal TSCA regulations.

5.0 SCOPE, TESTING, AND SCHEDULE

5.1 SCOPE

The scope of work for the abatement project solely addresses specified PCB-containing caulk, and adjacent porous materials greater than 1 ppm. Some PCB-containing caulk also contains regulated concentrations of asbestos. Table 5.1 summarizes materials scheduled for removal or abatement in accordance with this plan.

Table 5.1 Inventory of PCB-containing Building Materials, 100 Arlington Street, Boston, Massachusetts		
Building Material	Description	Extent of Removal
Window caulk	Grey and tan caulk types at exterior windows; brick façade/ east elevation and penthouse (108 windows total)	Estimated 2,160 linear feet of caulk
Vertical joint caulk and miscellaneous locations	Grey caulk located at vertical joints (2) between brick façade and limestone block at corners; and at miscellaneous repair locations	Estimated 200 linear feet of caulk
Brick	East elevation exterior	First row of bricks adjacent to all impacted caulk beads (windows, vertical joints, repair locations)
Limestone	Window sills Corners adjacent to vertical caulk beads	108 sills 180 linear feet of Cornerstones
Window frames and panning; Roof flashing	Metal and wood; east elevation brick façade and penthouse Third floor roof	108 units One location
PCB polychlorinated biphenyl ppm _w parts per million by weight BRL below reporting limit ¹ All amounts are best engineering estimates of total materials from all affected openings that may be present. Actual quantities may differ depending on site conditions and actual quantities must be verified for pricing purposes.		

Based upon the results of testing conducted to date, the scope of removal is estimated to include the specified caulk, and complete window frames, limestone sills, and limestone cornerstones in contact with the caulk. In addition, the first row of bricks and mortar in contact with the caulk will be removed. The caulk will be disposed as PCB bulk product waste and the impacted materials (greater than 1 ppm of PCBs), regardless of

PCB concentration, will be disposed as PCB bulk remediation waste at a TSCA/RCRA Title C facility licensed to accept these wastes.

Pre-characterization of building materials is planned to allow the remediation contractor to proceed with removal and the masons conducting the re-pointing to proceed without delay due to confirmatory analysis. As such, a conservative pre-characterization survey is proposed to support this effort. If any location or series of locations fails pre-characterization testing, additional removal (another row of brick) will be completed. Removal will include all caulk and impacted porous materials with total PCB concentrations greater than 1 ppm.

Pre-characterization testing will be conducted at the following frequencies:

- At the windows, testing of the first row of bricks or mortar below the sill will occur at a frequency of 15% or 17 locations.
- At the windows, testing of the first row of bricks or mortar above the metal lintel at the top side of the window will occur at a frequency of 15% or 17 locations.
- At the windows, testing of the mortar between the first and second row of bricks at the sides of the windows will occur at a frequency of 25% or 54 locations.
- At the vertical caulk beads (estimated at 180 feet in length), testing at the second row of "short" bricks (half bricks) will occur at 20 locations
- At the miscellaneous repair locations, samples of the second brick will be collected at 25% of the locations. These locations are typically less than 5 feet in length.

Results of pre-characterization testing will be provided to USEPA for review as soon as they are available. It is anticipated that this testing will be completed during July 2012.

5.2 WORK SEQUENCE

The work sequence (subsequent to pre-characterization testing) consists of the following general elements:

- Site isolation and protection
- Set up of swing staging at desired location

- Cut mortar at window side of second row of bricks
- Remove window panning and frame
- In-place removal of caulk and brick as a single unit for disposal
- Containerize caulk and brick unit inside building by passing through the window opening
- Remove cornerstone, caulk and brick from the same level via the same methods
- Clean the work area
- Dispose of waste as mixed ACM/PCB Bulk Product Waste

The abatement contractor shall supply all labor, materials, and equipment necessary to carry out the scope of work detailed in this document in a professional, workman-like manner. Final acceptance of the work is predicated on obtaining successful inspection results and completing site close out activities. In addition, the abatement contractor shall be required to submit for review and approval a work plan to TCG and EH&E detailing his/her planned abatement activities at the Building. The plan should include, at a minimum, a description of the removal activities, engineering controls, decontamination activities, and reporting.

5.3 SCHEDULE

All work shall be performed within TCG allocated time period for remediation activities. The abatement contractor shall closely coordinate his/her schedule with other contractors' schedules to expedite the work, as necessary.

The abatement and removal work is anticipated to take place during daytime hours beginning in August 2012, and it is anticipated that the work will take a total of approximately 4 months to complete. The abatement contractor will have to confirm the project schedule in writing during the first week of the work. Final approval of the schedule will be at the discretion of the owner and the revised schedule must address coordination issues with other contractors.

6.0 UTILITIES

TCG will provide temporary electrical power for the remediation contractor consistent with information provided in the contract documents, additional work to distribute power will be the responsibility of the contractor. Temporary water will be provided on-site consistent with the contract documents. The abatement contractor will have to make arrangements to distribute all needed water for abatement and cleaning activities.

6.1 WATER SYSTEMS

All water systems running through the work area and not being used must be shut off at the source. For any system that must be left on, the location of a shut-off valve must be clearly marked on the emergency plan. Water systems used by the contractor should be consistent with TCGs' requirements for the work activity.

6.2 ELECTRICAL SYSTEMS

Appropriate electrical systems that may pose a hazard during the abatement process must be shut down when being abated or cleaned. The power must be locked out at the control panel, and those individuals that have the ability to reenergize the area must be in close contact with the contractor and the remediation staff. The lockout of electrical systems must be conducted in accordance with the contractor's lock-out/tag-out safety program. Ground-fault circuit interrupters must be used for all temporary power supplies and extension cords.

6.3 EXISTING FACILITIES

Consistent with TCG's requirements, the contractor shall not conduct any work that will result in the damage of existing facilities not part of the scope of work defined in the work plan.

7.0 SITE PREPARATIONS

7.1 WORK AREA

In order to contain debris and to protect existing facilities and the environment during remediation of exterior caulk and selected removal of associated masonry, the contractor shall use sufficient ground cover where work will take place. At the swing stage and at indoor work area locations the contractor will install 6-mil polyethylene sheeting, tarp, or equivalent material temporarily secured with high quality fabric duct tape to prevent the sheeting from blowing or billowing due to weather/wind conditions. This sheeting shall serve to collect dust and debris from the masonry removal and surface cleaning operations. Special protective measures must be taken to prevent debris from entering sewer or drainage systems.

The abatement contractor at the end of every work shift shall remove all visible debris from ground cover and pavement by HEPA-filtered vacuuming. If tears or rips occur in the sheeting, the sheeting may be repaired with duct tape or removed and replaced with a new sheet, as warranted by the extent of the damage. The tarps and sheeting will be disposed as remediation waste.

7.2 SITE ISOLATION

During the abatement work, the contractor will need to address security and access concerns as part of the project. The contractor will employ dust control measures for all exterior work. The contractor will need to coordinate with TCG, and EH&E to address site isolation issues. In addition, the contractor will need to document site isolation issues in the work plan submittals.

7.3 WASTE CONTAINERS

The contractor shall obtain and locate the approved PCB/ACM waste containers on-site. The contractor will coordinate the location of the PCB/ACM waste containers with other trades, TCG's project manager, and TCG's designated environmental consultant. The PCB/ACM waste containers shall be clearly marked in accordance with all applicable

regulations and to avoid confusion with ordinary waste containers. The contractor shall submit a waste handling and storage plan for approval.

8.0 MATERIAL STORAGE AND HANDLING PROCEDURES

8.1 PCB BULK PRODUCT WASTE MATERIALS

PCB bulk product waste (e.g., caulk) shall be handled in a manner to avoid the breakdown of these materials into fine dust or powders. These materials shall be removed whole, without breakage if possible. The caulk is also an ACM, and must be handled in full compliance with applicable regulations, including wet removal. The contractor shall mist the caulk material and prevent pooling of liquid water during the work

Once removed, these materials shall be placed in the lined container or into an appropriate temporary container (e.g., 6-mil polyethylene disposal bag for caulk only) for transport into the PCB container at the end of the work shift. PCB waste and PCB-containing items shall be stored for disposal in accordance with 40 CFR 761.40 and 40 CFR 761.65. If temporary waste containers are used, then TCG's environmental consultant must approve all temporary containers that will store PCB bulk product waste. Commercial grade plastic or hard rubber trash barrels lined with a single 6-mil plastic disposal bag and a lid are acceptable temporary containers. Once in the container, these materials will be covered and protected from the weather. All containers and temporary containers shall be clearly marked as PCB-containing waste materials.

Lined and covered barrels containing PCB materials will be marked with designations indicating that the PCB materials are contained in the barrel, as stated in 40 CFR 761.65(c)(1). All barrels and PCB-contaminated materials will be non-liquid materials. In addition, a tarp shall be used to prevent spillage onto the floor of the storage area. When not in use, barrels will remain covered by both lids and tarps. All areas containing PCB waste must be secured at the end of the day.

To ensure that the material storage areas will not be a possible source of contaminants, EH&E may conduct limited air monitoring at the storage site. Any dried and brittle PCB bulk product wastes require additional care, such as the use of a HEPA-filtered vacuum operating while removing the material, to prevent the inadvertent release of PCB dust or powder into the environment.

8.2 PCB REMEDIATION WASTE

The primary PCB remediation wastes generated by this abatement project are metal window frames, brick and limestone. These materials will be placed directly into the lined container designated for transport and will not be stockpiled. All of these materials will be disposed as construction debris in a TSCA/RCRA Title C landfill licensed to take these PCB-containing wastes.

9.0 DISPOSAL

Disposal of all waste shall be in accordance with applicable state and federal regulations and sent to a licensed facility that will receive and retain PCB bulk product waste and PCB remediation waste, in accordance with EPA regulations under 40 CFR 761.61 and 40 CFR 761.62. All PCB bulk product waste and PCB remediation waste removed from the site will be kept separate from other ordinary construction waste streams that the contractor may generate. Copies of all bills of lading, waste shipment records, certificates of disposal, and any other documentation must be provided to TCG's project manager as proof of proper disposal of waste. Furthermore, copies of all manifests shall be provided to the EPA as part of the final summary report.

PCB bulk product and PCB remediation wastes will be stored according to applicable EPA TSCA regulations. The contractor shall ensure compliance with storage and marking requirements described in 40 CFR 761.40 and 40 CFR 761.65. The contractor shall also ensure that no visible emissions of dust will occur during the disposal of PCB bulk product and PCB remediation wastes into appropriate disposal containers.

The PCB bulk product waste and PCB remediation waste shall be disposed of in accordance with 40 CFR 761.62 and 40 CFR 761.61(b), respectively, at an approved landfill for such disposal. The contractor shall submit the name of the landfill(s) with appropriate documentation to verify that it is capable of accepting PCB waste in accordance with these requirements.

If PCB bulk product waste requires Toxicity Characteristic Leaching Procedure (TCLP) analysis prior to disposal, as required by the disposal facility, sampling and analysis will generally be conducted in compliance with Subpart R of the TSCA regulations, or at equivalent frequencies. The contractor is responsible for properly characterizing all waste.

10.0 REMOVAL PROCEDURES

Contractors must obtain proper permits and conduct work in compliance with all applicable regulations, including the TSCA, the RCRA, and any other applicable federal, state, and local laws. Abatement procedures for the work shall consist of the removal of specified PCB-containing materials. The PCB-containing caulk at the Building is also an ACM and therefore removal and disposal must comply with all applicable regulations for mixed waste.

In-place removal of the caulk will be utilized via the following methods:

- Locate area to abate and verify that proper site protection is in place. Protection must be installed at the staging and inside the building where the waste will be containerized and stored pending disposal.
- Moisten the caulk and remove the metal window frame, panning, and any attached caulk and place directly in appropriate container for disposal as PCB/ACM bulk product/remediation waste. Prevent water from pooling on the floor or other adjacent surfaces. If pooling occurs, use dry adsorbent to mitigate the water and dispose of as PCB remediation waste.
- Clean up dust and residues with HEPA-filtered vacuuming and/or wet wiping techniques.
- Moisten porous building materials with water using a low-pressure hand-held sprayer (e.g., garden sprayer) and maintain moisture content to reduce dust levels. Do not allow water to pool on the floor or on adjacent surfaces.
- All cuts will be made at locations outside the PCB-impacted area (at areas less than 1 ppm of PCBs).
- Mortar will be cut at the window side of the second brick. This assumes that pre-characterization testing finds that the second bricks contain less than 1 ppm total

PCBs. Contractor shall use local exhaust capture ventilation on any cutting tool to capture fugitive dust,

- Remove the caulk and adjacent brick or limestone. Employ precautions to minimize the breakage of bricks and limestone.
- Place caulk, brick, and limestone items designated as PCB remediation or bulk product waste in the appropriate disposal containers.
- No chutes or other transport methods that may generate fugitive emissions may be used to dispose PCB remediation or bulk product waste from the work area.
- Clean the work area using wet wipe and HEPA vacuum techniques.
- Dispose of poly sheeting protection as PCB remediation waste.

Upon completion of the cleaning, the Environmental Consultant will conduct visual inspections to verify the completeness of the cleaning effort. All materials will be disposed as mixed ACM/PCB bulk product or remediation waste.

11.0 ABATEMENT COMPLETION ACCEPTANCE CRITERIA

As part of the abatement process, verification that abatement and removal have been properly completed and meet the acceptance criteria described in this section will be required at the Building. EH&E will conduct random sampling during progress of the abatement process to verify the effectiveness of the removal activities. Prior to collecting samples, EH&E will conduct visual inspections of representative areas to note any visible buildup of dust or debris.

11.1 VISUAL INSPECTION CRITERIA

Upon completion of the work, EH&E will inspect removal areas and surfaces for visible evidence of dust or debris and inspect for the presence of any PCB/ACM source material. All areas where abatement activities have occurred shall be inspected. Inspections of various systems or surfaces will be conducted as the cleaning and removal is completed if, at the discretion of EH&E. Visual inspection will be used as a preliminary verification that abatement has been completed, but will not replace random sampling of materials and surfaces.

The acceptance criterion is that all surfaces that require cleaning, including protective sheeting and tarps, shall be free of visible dust and debris. In addition, no PCB material specified for removal shall remain in place.

11.2 PCB SAMPLING CRITERIA

EH&E utilized the EPA's *draft* Standard Operating Procedure for Sampling Concrete in the Field (dated December 30, 1997) for collecting pre-characterization samples as specified in Section 5. All samples at the selected removal distance must pass the disposal criterion of 1 ppm for unrestricted reuse. It is assumed that complete courses of brick and limestone will be removed based upon sampling. The sampled areas were selected to adequately represent the variety of conditions observed.

11.3 AIR MONITORING

EH&E will perform ambient work area sampling and testing for airborne particulates during removal activities. Air monitoring will focus on the initial stages of removal work and removal work at lower levels of the building where potential impacts to passersby may be more significant. Air samples will be collected using real-time instrumentation to measure airborne dust levels at the perimeter of the work area. These measurements will be compared to background dust levels collected at a control location upwind of the remediation activity. Direct reading instruments that continuously measure and log dust concentrations will be used to provide a real-time proxy of the effectiveness of control measures and potential PCB concentrations. During abatement a minimum of one upwind and two downwind stations will be deployed.

EH&E will use a one-hour average concentration of 150 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) for particulate matter that is 10 microns or smaller in size (PM_{10}) (based upon the National Ambient Air Quality Standards) as an action level for notification to the Remediation Contractor. This action level is the observed concentration above background as measured at the remote upwind location. If dust levels outside of the remediation area exceed action levels for more than one hour, the remediation work will be temporarily suspended until evaluation of dust suppression strategies, or the ambient environment has been performed.

Air sampling will be performed and evaluated by EH&E. Real-time, data-logging aerosol monitors will collect and record data for total airborne dust concentrations during the abatement work. A DustTrak™, manufactured by TSI Instruments (St. Paul, Minnesota) or equivalent will be used to conduct the monitoring. The DustTrak™ instrument measures airborne dust concentrations with an accuracy of one percent and a resolution of $1 \mu\text{g}/\text{m}^3$, using a forward light scattering laser diode. The monitoring range of the DustTrak™ Model 8520 is 0.001 – 100 milligrams per cubic meters. The unit is factory calibrated annually.

11.4 QUALITY ASSURANCE/QUALITY CONTROL

This section describes the quality assurance objectives, measurement criteria, and performance criteria that were employed for this program. The selected analytical test methods for this project will have laboratory quantification limits that are lower than the established project action limits.

The ultimate objective of this project is to remove PCB source materials and impacted adjacent porous materials, as specified in this plan. The data collected must be of sound quality to support a determination that sources have been removed and surfaces cleaned to meet the acceptance criteria.

The ability of the data to meet the project quality objectives shall be measured using data quality criteria, which include precision, accuracy, representativeness, comparability, completeness, and sensitivity parameters. Laboratory and field sampling activity documentation will be used to assess these parameters. In addition, only certified laboratories shall be used to ensure proper data handling techniques. The acceptance criteria and frequency of measurement of these parameters are summarized in Table 11.1.

Table 11.1 Quality Assurance and Control by Media			
Data Quality Indicators	Measurement Performance Criteria	QC Sample and/or Activity Used to Assess Measurement Performance	Frequency
Matrix Bulk Samples			
Precision—Overall	±45%	Field duplicates	Minimum: One per group or 10% of samples
Precision—Laboratory	±45%	1. Matrix spike 2. Matrix spike duplicates	Minimum: One per analysis.
Accuracy/Bias	±45%	1. Matrix spike 2. Matrix spike duplicates	Minimum: One per group or 5% of samples
Accuracy/Bias	Acceptable quality control range based on analytical technique	Laboratory control (PE) samples	Double column GC Surrogate compound
Accuracy/Bias—Contamination	No target analytes above laboratory quantification limit with the exception of common field/laboratory contaminants	1. Equipment blanks 2. Method blanks	Minimum: One per group
Comparability	Not applicable	Comparability check	Double column GC
Data completeness	90% Overall	Data completeness check	
Sensitivity	±100%	1. Laboratory fortified blank 2. Low calibration standard	Minimum: One per group or 10% of samples
QC quality control GC gas chromatography			

11.4.1 Precision

Precision is the degree of agreement among repeated measurements of the same characteristic under the same or similar conditions. In general, EH&E collects one duplicate sample for every ten samples collected or 10% of the sample size. No less than one duplicate set was collected, regardless of the sample size. The identity of the duplicate sample(s) is not revealed to the analytical laboratory. The target precision among field duplicates is ±45%, indicating good reproducibility. Because of the low possibility of residual PCBs in the collected samples, EH&E believes that a precision of 45% will be an acceptable indicator for reproducibility. Precision levels greater than 45% will not invalidate the sample data set, but will be flagged to caution users about the variability within the data.

11.4.2 Accuracy

Accuracy is the extent of agreement between an observed value (sample result) and the accepted or true value of the parameter being measured. EH&E employs proper quality control (QC) techniques, including the submittal of two field blanks or 10% of the sample number, whichever one is greater. In addition, all field equipment are calibrated and maintained to minimize variability. EH&E also observes proper handling and packaging techniques to preserve the integrity of the samples. Where appropriate, EH&E will use pre-spiked samples prepared by the laboratory to document the integrity of the sampling and analytical process. The appropriate laboratory QC program and analytical method determine acceptable recoveries. The laboratory utilized spiked samples, reference standards, and blanks to assure accuracy. Recoveries outside the acceptable limits will not invalidate the sample data set; however, the data will be flagged to warn of its reliability.

11.4.3 Representativeness

Representativeness is a qualitative term that describes the extent to which a sampling design adequately reflects the environmental conditions of a site. The samples are selected to represent the various field conditions and the types of areas that will be remediated.

11.4.4 Reasonableness

All data are evaluated for reasonableness based on existing knowledge of the Aroclor mixtures in the building environment and on pre-abatement levels. In addition, levels published in the scientific literature will be consulted to evaluate the data both before and after the remediation. It is expected that the remediation will substantially reduce residues below target cleanup levels. Any data that substantially falls outside these expected levels will be further evaluated for accuracy and additional data collection may be required.

11.4.5 Completeness

Completeness is a measure (percentage) of the amount of valid data obtained meeting the data quality objectives. Valid data are data that are soundly founded as evidenced by the data quality indicators. The acceptable completeness percentage for this project is 90%.

12.0 SITE CLOSE-OUT

Upon successful completion of the work, including meeting the acceptance criteria specified in Section 11, the contractor will demobilize from the Site and will complete the following specific tasks:

- Removal of all abatement materials.
- Removal of containers and off-site disposal of all waste.
- Repair of any damage to site systems or components caused by the abatement contractor's work.

13.0 HEALTH AND SAFETY

13.1 CONTRACTOR HEALTH AND SAFETY PLAN

The abatement contractor must submit a written health and safety plan that details engineering controls, practices and procedures, protective equipment, and training that will be used to control and minimize exposures. In addition, the plan will include provisions for all relevant health and safety issues.

The safety plan shall include copies of training materials and training records for those who will be working on-site at any time during the remediation project. If new employees are hired during the course of the work, they must receive training prior to beginning work and evidence of this training must be provided to TCG' project manager and environmental consultant.

13.2 OSHA REGULATIONS

All applicable federal and state OSHA standards and regulations to ensure worker safety will be in effect during the abatement process. The following programs must be addressed in the contractor's health and safety plan. This is not a comprehensive list of the required programs, and the contractor is responsible for determining which programs apply and how best to implement the required programs.

- Fall Protection
- Personal Protective Equipment
- Lockout/Tagout
- Confined Spaces
- Machine Safety
- Ladder/Scaffolding Safety
- Electrical Safety
- Housekeeping (Slips, Trips, Falls)
- Injury Reporting
- First Aid
- HAZWOPER/HAZMAT

- Asbestos Abatement

13.3 PUBLIC SAFETY

All of the work will take place from the exterior of the building. As such, the contractor, in conjunction with TCG, and EH&E, will need to ensure public safety during the abatement work. The contractor will need to implement control and/or containment measures designed to protect workers, occupants, and the environment from the release of PCB-containing materials. Containment may include, but not be limited to, draping work areas, the use of HEPA filters to collect fugitive emissions during the dust generating operations, isolation of work areas from occupied areas, blocking off windows, and protective wind screens.

Access to work areas will need to be limited to ensure that only workers aware of the abatement project will be within the Site. Proper hygiene and decontamination procedures must be followed to limit the potential for transferring PCB remediation waste outside the work area.

During the remediation work, TCG's environmental consultant will conduct visual assessments to verify the effectiveness of the containment controls of the abatement contractor. If observations indicate that additional containment or engineering controls are required, the abatement contractor will be responsible for making the necessary adjustments to engineering controls and work practices to minimize fugitive emissions, as determined by TCG's environmental consultant. In addition, if there is evidence of PCB bulk product waste or remediation waste outside of the immediate work area (as determined by visual inspection by TCG's environmental consultant), the abatement contractor shall be responsible for cleaning up the dust/debris in accordance with the procedures and to the standards specified in Section 10, and shall modify controls and procedures to prevent a reoccurrence, at no cost to TCG.

14.0 FINAL APPROVAL AND ACCEPTANCE

Final approval of the remedial work will be given when the following conditions are met:

- The work has been completed in a professionally competent manner, as demonstrated by successful visual inspections described in Section 11.
- The results of all testing meet the standards specified in Section 9.
- The Site has been successfully closed out.
- TCG will receive a completed and accurate waste manifest for every PCB waste container removed from the building's waste storage location.

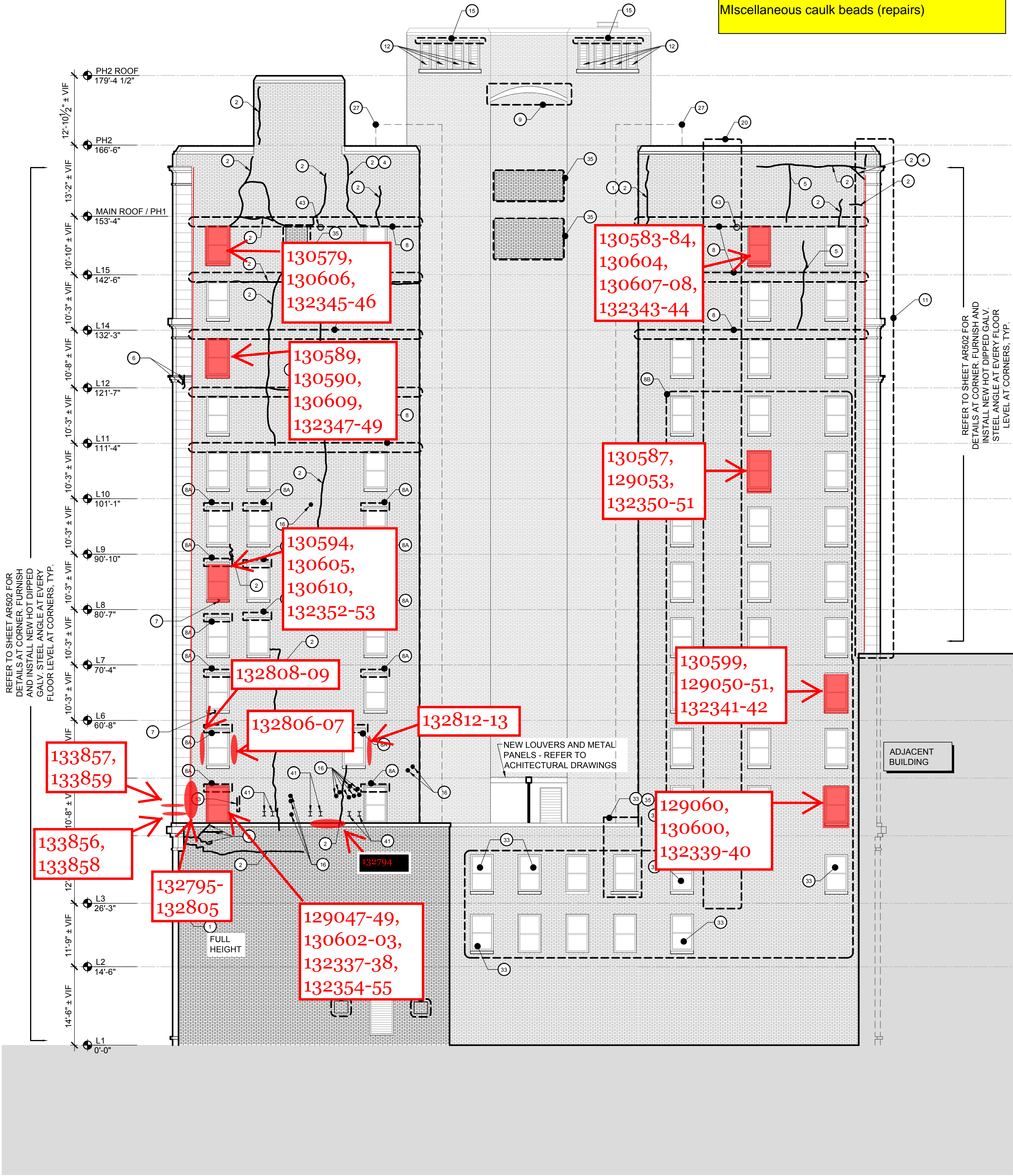
Both TCG's project manager and TCG's environmental consultant must give final approval. Approval of the abatement and remediation will be given by TCG's environmental consultant in consultation with TCG's project manager.

APPENDIX A

FIGURES

Figure A.1 Sample Locations

All windows this elevation
Two vertical caulk beads as indicated
Miscellaneous caulk beads (repairs)



SYMBOL		ELEVATION KEYNOTES		
2		CRACKED BRICK(S) - RAKE OUT AND REMOVE ALL EXISTING SEALANT, MORTAR AND BRICK A DEPTH OF 3/8" THE FULL HEIGHT AND WIDTH OF CRACK. FURNISH AND INSTALL NEW CONTINUOUS BACKER ROD AND SEALANT.	22	SHIFTED LIMESTONE - REMOVE EXISTING LIMESTONE. REPAIR DAMAGED AREAS PER SHEET AR-502 AND REINSTALL EXISTING STONE
			23	AT ENTIRE INSIDE ELEVATION OF PARAPET WALLS AND AT PENTHOUSES: -REMOVE EXISTING COPPER STANDING SEAM PANELS ENTIRE LENGTH OF PARAPET WALLS -DESCALE AND APPLY 2 COATS RD ELASTOMETAL ON ALL EXPOSED METAL (EXPOSED AFTER COPPER STANDING SEAM PANELS ARE REMOVED), SURFACE PREP PER MANUFACTURER'S INSTRUCTIONS. -AT MASONRY: REMOVE ALL LOOSE AND DETERIORATED MATERIALS. PARGE MASONRY TO CREATE SMOOTH SURFACE -AT STEEL: WRAP STEEL WITH USG DUROCK AND METAL STUD FRAMING -INSTALL METAL LATHE AND CONPROCO STRUCTURAL SKIN WITH CONPRO LASTIC. SURFACE PREP PER MANUFACTURER'S INSTRUCTIONS. INSTALL CONTROL JOINTS AS INDICATED ON ELEVATIONS AND AT CORNERS AND PER MANUFACTURERS RECOMMENDATIONS - REFER TO SHEET AR503 FOR TYPICAL DETAILS
3		HOLES(S) IN MASONRY WALL - REMOVE DAMAGED BRICK CLEAN OUT AND DRY, MAKE FREE OF ALL SEALANT, DUST, RESIDUAL MORTAR AND OTHER SURFACE CONTAMINANTS. INSTALL NEW BRICK MASONRY PER DETAIL 1/AR-501.		
4		SPALLED BRICK - TOOTH-OUT EXISTING BRICK AND MORTAR SURROUNDING THEM. FURNISH AND INSTALL NEW BRICK MASONRY (TOOTH-IN) - NEW BRICK AND MORTAR SHALL MATCH THE EXISTING ADJACENT BRICK IN COLOR, TEXTURE, SIZE, SHAPE AND PATTERN. REFER TO DETAIL 1/AR-501.		
5		PREVIOUSLY REPAIRED CRACKED BRICK AND MORTAR WITH SEALANT - RAKE OUT AND REMOVE ALL EXISTING SEALANT, MORTAR AND BRICK A DEPTH OF 3/8" THE FULL HEIGHT AND WIDTH OF CRACK. FURNISH AND INSTALL NEW CONTINUOUS BACKER ROD AND SEALANT.		
6		CRACKED LIMESTONE - REFER TO LIMESTONE REPAIR DETAILS ON SHEET AR-501.		
7		CRACKED OR BROKEN STONE SILL - REFER TO REPAIR DETAILS ON SHEET AR-501.		
8		RUSTED & DEFLECTED RELIEVING ANGLE WITH CRACKED BRICKS ABOVE & BELOW THE ANGLES - REMOVE ANGLE AND 5 COURSES OF BRICK ABOVE ANGLE AND 2 COURSES BELOW ANGLE. FURNISH AND INSTALL A NEW ANGLE AND BRICK TO MATCH EXISTING PER DETAIL 1/AR-503	24	EXISTING SIGNAGE - REMOVE EXISTING SIGNAGE AND REPAIR EXISTING LIMESTONE BEHIND. REFER TO KEYNOTES 1, 3 AND 6. REFER TO ARCHITECTURAL DRAWINGS FOR NEW SIGNAGE ON FACADE
8A		AT AREAS INDICATED ON DRAWINGS REMOVE ALL LINTEL ANGLES ABOVE WINDOWS AND 5 COURSES OF BRICK ABOVE THE ANGLE. FURNISH AND INSTALL NEW ANGLE AND SELF ADHERING WATERPROOF MEMBRANE. STAINLESS STEEL FLASHING AND BRICK TO MATCH EXISTING PER DETAIL 1/AR-503 (SIM)	25	FURNISH AND INSTALL NEW COPPER FLASHING AT TOP OF PARAPET PER DETAIL 2/AR503 - FULL PERIMETER
8B		ALTERNATE: AT AREAS INDICATED ON DRAWINGS REMOVE ALL LINTEL ANGLES ABOVE WINDOWS AND 5 COURSES OF BRICK ABOVE THE ANGLE. FURNISH AND INSTALL NEW ANGLE AND SELF ADHERING WATERPROOF MEMBRANE. STAINLESS STEEL FLASHING AND BRICK TO MATCH EXISTING PER DETAIL 1/AR-503 (SIM)	26	HOLE IN LIMESTONE - REFER TO DETAIL 5/AR-501
9		SPALLED OR CRACKED CONCRETE - REFER TO DETAILS 9/AR-501 AND 10/AR-501.	27	AT AREAS OF REMOVED DUCTWORK AND ATTACHMENTS PATCH/REPAIR OR REPLACE ALL DAMAGED BRICK PER DETAILS 1/AR-501
10		RUSTED STEEL BRACKET OR MISC. METAL - WIRE BRUSH CLEAN SURFACE OF METAL. MAKE FREE OF ALL RUST, DIRT AND OTHER SURFACE CONTAMINANTS. PRIME AND PAINT EXPOSED SURFACES WITH RUST PROOF COATING - COLOR TO MATCH ORIGINAL.	28	CRACK IN GRANITE - PREPARE EXISTING GRANITE AND REPAIR WITH APPROVED REPAIR MATERIAL PER SPECIFICATIONS
11		CRACKED & SPALLED LIMESTONE - REFER TO DETAILS ON AR-502 FOR DEMOLITION AND NEW CONSTRUCTION, TYP FULL HEIGHT AS INDICATED ON ELEVATIONS	29	CRACKED, ERODED, AND OPEN GRANITE MORTAR JOINTS - RAKE OUT AND REMOVE CRACKED AND ERODED MORTAR JOINTS. CLEAN AND DRY THE JOINTS AND MAKE FREE OF ALL DUST, RESIDUAL MORTAR AND OTHER SURFACE CONTAMINANTS. FURNISH AND INSTALL NEW MORTAR - NEW MORTAR SHALL MATCH EXISTING ADJACENT IN PATTERN, SIZE, AND TOOLING. REFER TO DETAIL 2/AR-501 SIM.
12		EXISTING LOUVERS - FURNISH AND INSTALL NEW SEALANT AND EMSEAL BACKERSEAL AROUND FULL PERIMETER	30	REMOVE EXISTING FUTURE/CONDUITS AND ALL ASSOCIATED ATTACHMENTS - REPAIR LIMESTONE PER SHEET AR501
13		REMOVE EXISTING WALL PENETRATION/ATTACHMENT - REPAIR ANY ADJACENT CRACKED OR BROKEN BRICK PER DETAIL 1/AR-501	31	WATER DAMAGED BRICK AND MORTAR WITH HIGHLY DETERIORATED STEEL LINTEL ANGLES - REMOVE ALL CRACKED BRICKS AND ALL DEBRIS FROM STEEL RELIEVING ANGLE. WIRE BRUSH CLEAN SURFACES OF THE ANGLE, MAKE FREE OF ALL RUST, DIRT AND OTHER SURFACE CONTAMINANTS AND COAT ALL EXPOSED SURFACES OF THE LINTEL ANGLE WITH RD ELASTOMETAL COATING. FURNISH AND INSTALL NEW BRICK AND MORTAR TO MATCH EXISTING AT AREAS OF REMOVED.
14		FAILED OR MISSING SEALANT AT TOP OF WALL MOUNTED EQUIPMENT - REMOVE EXISTING SEALANT, FURNISH AND INSTALL NEW BOND BREAKER TAPE AND SEALANT AT THE TOP OF WALL MOUNTED EQUIPMENT. REFER TO DETAIL 7/AR-501	32	REMOVE EXISTING DETERIORATED SCUPPER & DOWNSPOUT - AND FURNISH AND INSTALL NEW SCUPPER & DOWNSPOUT TO MATCH EXISTING
15		RUSTED & DEFLECTED RELIEVING ANGLE WITH CRACKED LIMESTONE ABOVE & BELOW THE ANGLES - REMOVE ALL CRACKED LIMESTONE AND ALL DEBRIS FROM STEEL ANGLE. WIRE BRUSH CLEAN SURFACES OF THE ANGLE, MAKE FREE OF ALL RUST, DIRT, AND OTHER SURFACE CONTAMINANTS AND COAT ALL EXPOSED SURFACES WITH RD ELASTOMETAL COATING. FURNISH AND INSTALL NEW LIMESTONE AND MORTAR TO MATCH EXISTING AT AREAS OF REMOVED	33	NEW OPENING - REFER TO ARCHITECTURAL DRAWINGS
16		ABANDONED ANCHOR - REMOVE ABANDONED ANCHOR AND PATCH REMAINING HOLE - REFER TO STONE OR MASONRY PATCH REPAIR DETAIL 8/AR501.	35	INFILL EXISTING OPENING AT WALL TO MATCH EXISTING ADJACENT MATERIALS AND REMOVE EXISTING LINTEL - NEW MASONRY AND MORTAR SHALL MATCH THE EXISTING ADJACENT BRICK OR LIMESTONE IN COLOR, TEXTURE, SIZE, SHAPE AND PATTERN. FURNISH AND INSTALL NEW SEALANT, BACKER ROD AND EMSEAL BACKERSEAL THE FULL PERIMETER OF INFILL
17		RUSTED CAST IRON PANELS - WIRE BRUSH CLEAN SURFACE OF METAL. MAKE FREE OF ALL RUST, DIRT AND OTHER SURFACE CONTAMINANTS. PRIME AND PAINT EXPOSED SURFACES WITH RUST PROOF COATING - COLOR TO MATCH ORIGINAL.	36	FURNISH AND INSTALL NEW GRANITE BASE BELOW AND ON SIDES OF SIDELIGHT - REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS
18		SPALLED LIMESTONE - REFER TO LIMESTONE PATCHING REPAIR DETAIL 4/AR-501. AT AREAS OF EXPOSED STEEL REMOVE RUST AND APPLY 2 COATS RD ELASTOMETAL ON ALL EXPOSED SURFACES	37	FURNISH AND INSTALL NEW LIMESTONE AT DOOR PERIMETER - REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS
19A		REPAIR PARAPET IN PLACE REFER TO SHEET AR301: RAKE OUT AND REMOVE 100% OF ALL MORTAR JOINTS. CLEAN AND DRY THE JOINTS AND MAKE FREE OF ALL CONTAMINANTS. FURNISH AND INSTALL NEW MORTAR PER DETAIL 2/AR501. PATCH & REPAIR THE BACK UP MASONRY AND REPLACE ALL STONE ANCHORS WITH NEW STAINLESS STEEL ANCHORS.	38	NEW CANOPY - REFER TO ARCHITECTURAL DRAWINGS. PATCH AND REPAIR EXISTING DAMAGED LIMESTONE AT AREAS OF REMOVED CANOPY AND ATTACHMENTS
19B		REBUILD TOP TWO STONE COURSES REFER TO SHEET AR301: CAREFULLY REMOVE AND NUMBER EACH STONE. STORE IN A SAFE PLACE APPROVED BY THE OWNER. REMOVE ALL RUST FROM THE EXPOSED STEEL FRAMING. CONTACT THE ARCHITECT & STRUCTURAL ENGINEER TO PERFORM A REVIEW OF THE EXPOSED STRUCTURAL STEEL. AUGMENT THE STRUCTURAL STEEL AS DETERMINED BY THE STRUCTURAL ENGINEER. PROVIDE RD ELASTOMETAL OVER ALL EXPOSED STEEL (NEW & EXISTING). FURNISH AND INSTALL ALL NEW STAINLESS STEEL PINS AND ANCHORS FOR THE TOP TWO COURSES OF STONE. CAREFULLY SET THE EXISTING STONE BACK IN PLACE, PLUMB AND IN ALIGNMENT. PROVIDE ALL NEW FLASHING IN CONFORMANCE WITH DETAIL 2/AR503. 100% REPOINT OF ALL MORTAR JOINTS.	39	FURNISH AND INSTALL NEW 2-PIECE FLASHING AT ROOF TERMINATION PER DETAIL 1/AR505 - 100% FULL PERIMETER
20		AREA OF PREVIOUSLY REMOVED CHIMNEY - REPLACE ALL BROKEN AND CRACKED BRICK TO MATCH EXISTING ADJACENT	40	FURNISH AND INSTALL WATERPROOF MEMBRANE AND NEW STAINLESS STEEL THROUGH WALL FLASHING WITH NEW CONTINUOUS STAINLESS STEEL CLEAT THE FULL PERIMETER OF PENTHOUSE
21		FAILED SEALANT AT EXPANSION JOINT - REMOVE ALL EXISTING SEALANT. FURNISH AND INSTALL NEW EMSEAL COLORSEAL FULL HEIGHT OF JOINT- COLOR TO MATCH EXISTING	41	AT ALL EXISTING ABANDONED EXPOSED STEEL ON ELEVATIONS/BACK OF PARAPETS CUT STEEL BACK TO WALL, DESCALE AND APPLY 2 COATS RD ELASTOMETAL. SURFACE PREP PER MANUFACTURER'S RECOMMENDATIONS
			42	FURNISH AND INSTALL NEW CONTINUOUS EMSEAL HORIZONTAL COLORSEAL AT BUILDING TO SIDEWALK JOINTS - FULL PERIMETER. PER DETAIL 9/AR503
			43	FURNISH AND INSTALL NEW EMERGENCY OVERFLOW SCUPPERS AT BRICK MASONRY WALL
				STUART STREET
				WALKWAY

GENERAL NOTES 100% ENTIRE BUILDING

- REFER TO PHOTOGRAPHIC REPORT FOR ADDITIONAL INFORMATION
- 100% FAILED SEALANT JOINTS ON ALL FACADES: REMOVE ALL EXISTING SEALANT AND BACKER ROD FROM ALL JOINTS. FURNISH AND INSTALL NEW CONTINUOUS COMPRESSIBLE CLOSED CELL FOAM BACKER ROD AND CONTINUOUS SEALANT (TYP)
- 100% FAILED LIMESTONE MORTAR JOINTS: RAKE OUT AND REMOVE ALL LIMESTONE MORTAR JOINTS. CLEAN AND DRY THE JOINTS AND MAKE FREE OF ALL CONTAMINANTS. FURNISH AND INSTALL NEW MORTAR TO MATCH EXISTING - REFER TO 2/AR-501
- FAILED BRICK MORTAR JOINTS: ALLOW FOR 25% REPOINTING AT BRICK. RAKE OUT AND REMOVE BRICK MORTAR JOINTS. CLEAN AND DRY THE JOINTS AND MAKE FREE OF ALL CONTAMINANTS. FURNISH AND INSTALL NEW MORTAR TO MATCH EXISTING - REFER TO 2/AR-501 (SIM)
- AT ALL EXISTING AND NEW EXPOSED STEEL 100% ON BUILDING (EXPOSED BEFORE AND AFTER DEMOLITION) APPLY 2 COATS RD ELASTOMETAL. SURFACE PREP PER MANUFACTURER'S INSTRUCTIONS
- REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL WINDOW AND LOUVER INFORMATION

1 EAST ELEVATION
AR204
SCALE: 3/32"=1'-0"

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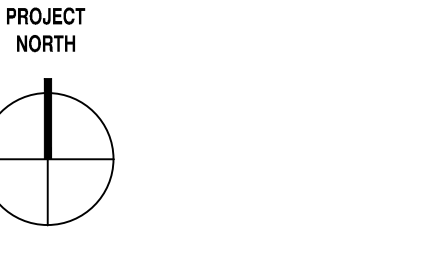
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PROJECT NUMBER: 09007
Construction Documents

DATE: January 20, 2012

REVISIONS:

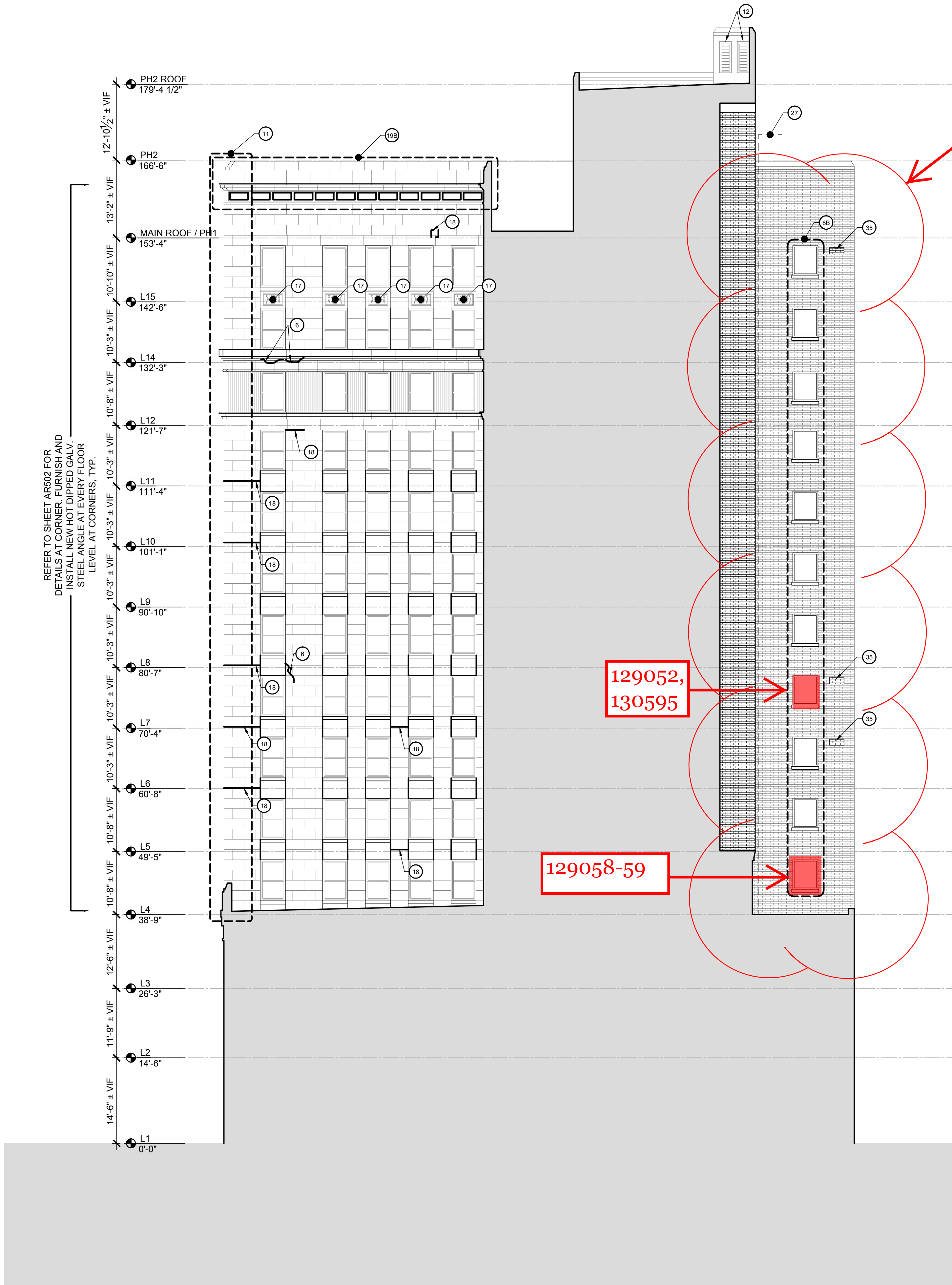
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DRAWING NAME:
EAST ELEVATION

DRAWING NUMBER:

AR204

Figure A.2 Sample Locations



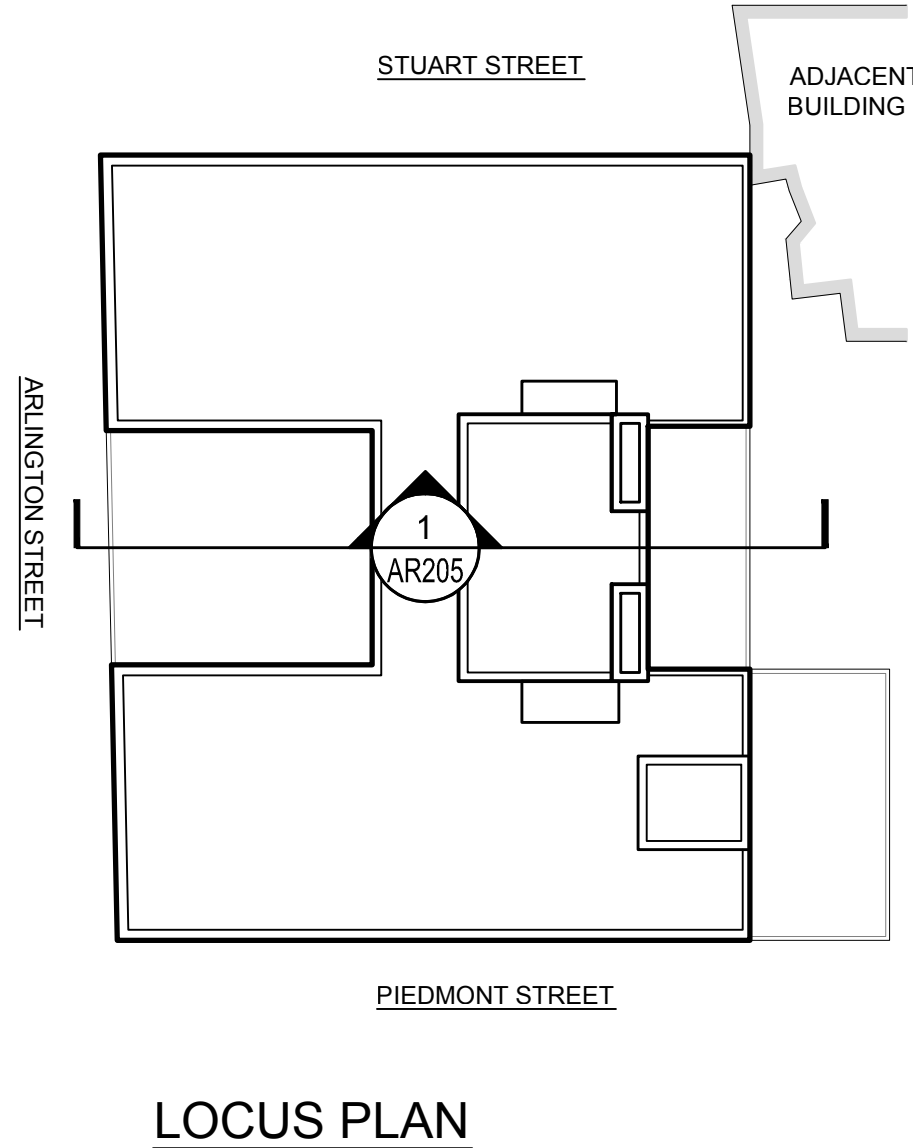
SYMBOL	ELEVATION KEYNOTES		
2	CRACKED BRICK(S) - RAKE OUT AND REMOVE ALL EXISTING SEALANT, MORTAR AND BRICK A DEPTH OF 3/8" THE FULL HEIGHT AND WIDTH OF CRACK. FURNISH AND INSTALL NEW CONTINUOUS BACKER ROD AND SEALANT.	22	SHIFTED LIMESTONE - REMOVE EXISTING LIMESTONE. REPAIR DAMAGED AREAS PER SHEET AR-502 AND REINSTALL EXISTING STONE
3	HOLE(S) IN MASONRY WALL - REMOVE DAMAGED BRICK CLEAN OUT AND DRY, MAKE FREE OF ALL SEALANT, DUST, RESIDUAL MORTAR AND OTHER SURFACE CONTAMINANTS. INSTALL NEW BRICK MASONRY PER DETAIL 1/AR-501.	23	AT ENTIRE INSIDE ELEVATION OF PARAPET WALLS AND AT PENTHOUSES: -REMOVE EXISTING COPPER STANDING SEAM PANELS ENTIRE LENGTH OF PARAPET WALLS -DESCALE AND APPLY 2 COATS RD ELASTOMETAL ON ALL EXPOSED METAL (EXPOSED AFTER COPPER STANDING SEAM PANELS ARE REMOVED), SURFACE PREP PER MANUFACTURER'S INSTRUCTIONS. -AT MASONRY: REMOVE ALL LOOSE AND DETERIORATED MATERIALS. PARGE MASONRY TO CREATE SMOOTH SURFACE -AT STEEL: WRAP STEEL WITH USG DUROCK AND METAL STUD FRAMING -INSTALL METAL LATHE AND CONPROCO STRUCTURAL SKIN WITH CONPRO LASTIC. SURFACE PREP PER MANUFACTURER'S INSTRUCTIONS. INSTALL CONTROL JOINTS AS INDICATED ON ELEVATIONS AND AT CORNERS AND PER MANUFACTURERS RECOMMENDATIONS - REFER TO SHEET AR503 FOR TYPICAL DETAILS
4	SPALLED BRICK - TOOTH-OUT EXISTING BRICK AND MORTAR SURROUNDING THEM. FURNISH AND INSTALL NEW BRICK MASONRY (TOOTH-IN) - NEW BRICK AND MORTAR SHALL MATCH THE EXISTING ADJACENT BRICK IN COLOR, TEXTURE, SIZE, SHAPE AND PATTERN. REFER TO DETAIL 1/AR-501.	24	EXISTING SIGNAGE - REMOVE EXISTING SIGNAGE AND REPAIR EXISTING LIMESTONE BEHIND. REFER TO KEYNOTES 1, 3 AND 6. REFER TO ARCHITECTURAL DRAWINGS FOR NEW SIGNAGE ON FACADE
5	PREVIOUSLY REPAIRED CRACKED BRICK AND MORTAR WITH SEALANT - RAKE OUT AND REMOVE ALL EXISTING SEALANT, MORTAR AND BRICK A DEPTH OF 3/8" THE FULL HEIGHT AND WIDTH OF CRACK. FURNISH AND INSTALL NEW CONTINUOUS BACKER ROD AND SEALANT.	25	FURNISH AND INSTALL NEW COPPER FLASHING AT TOP OF PARAPET PER DETAIL 2/AR503 - FULL PERIMETER
6	CRACKED LIMESTONE - REFER TO LIMESTONE REPAIR DETAILS ON SHEET AR-501.	26	HOLE IN LIMESTONE - REFER TO DETAIL 5/AR-501
7	CRACKED OR BROKEN STONE SILL - REFER TO REPAIR DETAILS ON SHEET AR-501.	27	AT AREAS OF REMOVED DUCTWORK AND ATTACHMENTS PATCH/REPAIR OR REPLACE ALL DAMAGED BRICK PER DETAILS 1/AR-501
8	RUSTED & DEFLECTED RELIEVING ANGLE WITH CRACKED BRICKS ABOVE & BELOW THE ANGLES - REMOVE ANGLE AND 5 COURSES OF BRICK ABOVE ANGLE AND 2 COURSES BELOW ANGLE. FURNISH AND INSTALL A NEW ANGLE AND BRICK TO MATCH EXISTING PER DETAIL 1/AR-503	28	CRACK IN GRANITE - PREPARE EXISTING GRANITE AND REPAIR WITH APPROVED REPAIR MATERIAL PER SPECIFICATIONS
8A	AT AREAS INDICATED ON DRAWINGS REMOVE ALL LINTEL ANGLES ABOVE WINDOWS AND 5 COURSES OF BRICK ABOVE THE ANGLE. FURNISH AND INSTALL NEW ANGLE AND SELF ADHERING WATERPROOF MEMBRANE, STAINLESS STEEL FLASHING AND BRICK TO MATCH EXISTING PER DETAIL 1/AR-503 (SIM)	29	CRACKED, ERODED, AND OPEN GRANITE MORTAR JOINTS - RAKE OUT AND REMOVE CRACKED AND ERODED MORTAR JOINTS. CLEAN AND DRY THE JOINTS AND MAKE FREE OF ALL DUST, RESIDUAL MORTAR AND OTHER SURFACE CONTAMINANTS. FURNISH AND INSTALL NEW MORTAR - NEW MORTAR SHALL MATCH EXISTING ADJACENT IN PATTERN, SIZE, AND TOOLING. REFER TO DETAIL 2/AR-501 SIM.
8B	ALTERNATE: AT AREAS INDICATED ON DRAWINGS REMOVE ALL LINTEL ANGLES ABOVE WINDOWS AND 5 COURSES OF BRICK ABOVE THE ANGLE. FURNISH AND INSTALL NEW ANGLE AND SELF ADHERING WATERPROOF MEMBRANE, STAINLESS STEEL FLASHING AND BRICK TO MATCH EXISTING PER DETAIL 1/AR-503 (SIM)	30	REMOVE EXISTING FUTURE/CONDUITS AND ALL ASSOCIATED ATTACHMENTS - REPAIR LIMESTONE PER SHEET AR501
9	SPALLED OR CRACKED CONCRETE - REFER TO DETAILS 9/AR-501 AND 10/AR-501.	31	WATER DAMAGED BRICK AND MORTAR WITH HIGHLY DETERIORATED STEEL LINTEL ANGLES - REMOVE ALL CRACKED BRICKS AND ALL DEBRIS FROM STEEL RELIEVING ANGLE. WIRE BRUSH CLEAN SURFACES OF THE ANGLE, MAKE FREE OF ALL RUST, DIRT AND OTHER SURFACE CONTAMINANTS AND COAT ALL EXPOSED SURFACES OF THE LINTEL ANGLE WITH RD ELASTOMETAL COATING. FURNISH AND INSTALL NEW BRICK AND MORTAR TO MATCH EXISTING AT AREAS OF REMOVED.
10	RUSTED STEEL BRACKET OR MISC. METAL - WIRE BRUSH CLEAN SURFACE OF METAL. MAKE FREE OF ALL RUST, DIRT AND OTHER SURFACE CONTAMINANTS. PRIME AND PAINT EXPOSED SURFACES WITH RUST PROOF COATING - COLOR TO MATCH ORIGINAL.	32	REMOVE EXISTING DETERIORATED SCUPPER & DOWNSPOUT - AND FURNISH AND INSTALL NEW SCUPPER & DOWNSPOUT TO MATCH EXISTING
11	CRACKED & SPALLED LIMESTONE - REFER TO DETAILS ON AR-502 FOR DEMOLITION AND NEW CONSTRUCTION, TYP FULL HEIGHT AS INDICATED ON ELEVATIONS	33	NEW OPENING - REFER TO ARCHITECTURAL DRAWINGS
12	EXISTING LOUVERS - FURNISH AND INSTALL NEW SEALANT AND EMSEAL BACKERSEAL AROUND FULL PERIMETER	35	INFILL EXISTING OPENING AT WALL TO MATCH EXISTING ADJACENT MATERIALS AND REMOVE EXISTING LINTEL - NEW MASONRY AND MORTAR SHALL MATCH THE EXISTING ADJACENT BRICK OR LIMESTONE IN COLOR, TEXTURE, SIZE, SHAPE AND PATTERN. FURNISH AND INSTALL NEW SEALANT, BACKER ROD AND EMSEAL BACKERSEAL THE FULL PERIMETER OF INFILL
13	REMOVE EXISTING WALL PENETRATION/ATTACHMENT - REPAIR ANY ADJACENT CRACKED OR BROKEN BRICK PER DETAIL 1/AR-501	36	FURNISH AND INSTALL NEW GRANITE BASE BELOW AND ON SIDES OF SIDELIGHT - REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS
14	FAILED OR MISSING SEALANT AT TOP OF WALL MOUNTED EQUIPMENT - REMOVE EXISTING SEALANT, FURNISH AND INSTALL NEW BOND BREAKER TAPE AND SEALANT AT THE TOP OF WALL MOUNTED EQUIPMENT - REFER TO DETAIL 7/AR-501	37	FURNISH AND INSTALL NEW LIMESTONE AT DOOR PERIMETER - REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS
15	RUSTED & DEFLECTED RELIEVING ANGLE WITH CRACKED LIMESTONE ABOVE & BELOW THE ANGLES - REMOVE ALL CRACKED LIMESTONE AND ALL DEBRIS FROM STEEL ANGLE. WIRE BRUSH CLEAN SURFACES OF THE ANGLE, MAKE FREE OF ALL RUST, DIRT, AND OTHER SURFACE CONTAMINANTS AND COAT ALL EXPOSED SURFACES WITH RD ELASTOMETAL COATING. FURNISH AND INSTALL NEW LIMESTONE AND MORTAR TO MATCH EXISTING AT AREAS OF REMOVED	38	NEW CANOPY - REFER TO ARCHITECTURAL DRAWINGS. PATCH AND REPAIR EXISTING DAMAGED LIMESTONE AT AREAS OF REMOVED CANOPY AND ATTACHMENTS
16	ABANDONED ANCHOR - REMOVE ABANDONED ANCHOR AND PATCH REMAINING HOLE - REFER TO STONE OR MASONRY PATCH REPAIR DETAIL 8/AR501.	39	FURNISH AND INSTALL NEW 2-PIECE FLASHING AT ROOF TERMINATION PER DETAIL 1/AR505 - 100% FULL PERIMETER
17	RUSTED CAST IRON PANELS - WIRE BRUSH CLEAN SURFACE OF METAL. MAKE FREE OF ALL RUST, DIRT AND OTHER SURFACE CONTAMINANTS. PRIME AND PAINT EXPOSED SURFACES WITH RUST PROOF COATING - COLOR TO MATCH ORIGINAL.	40	FURNISH AND INSTALL WATERPROOF MEMBRANE AND NEW STAINLESS STEEL THROUGH WALL FLASHING WITH NEW CONTINUOUS STAINLESS STEEL CLEAT THE FULL PERIMETER OF PENTHOUSE
18	SPALLED LIMESTONE - REFER TO LIMESTONE PATCHING REPAIR DETAIL 4/AR-501. AT AREAS OF EXPOSED STEEL REMOVE RUST AND APPLY 2 COATS RD ELASTOMETAL ON ALL EXPOSED SURFACES	41	AT ALL EXISTING ABANDONED EXPOSED STEEL ON ELEVATIONS/BACK OF PARAPETS CUT STEEL BACK TO WALL, DESCALE AND APPLY 2 COATS RD ELASTOMETAL. SURFACE PREP PER MANUFACTURER'S RECOMMENDATIONS
18A	REPAIR PARAPET IN PLACE REFER TO SHEET AR301: RAKE OUT AND REMOVE 100% OF ALL MORTAR JOINTS. CLEAN AND DRY THE JOINTS AND MAKE FREE OF ALL CONTAMINANTS. FURNISH AND INSTALL NEW MORTAR PER DETAIL 2/AR501. PATCH & REPAIR THE BACK UP MASONRY AND REPLACE ALL STONE ANCHORS WITH NEW STAINLESS STEEL ANCHORS.	42	FURNISH AND INSTALL NEW CONTINUOUS EMSEAL HORIZONTAL COLORSEAL AT BUILDING TO SIDEWALK JOINTS - FULL PERIMETER. PER DETAIL 9/AR503
18B	REBUILD TOP TWO STONE COURSES REFER TO SHEET AR301: CAREFULLY REMOVE AND NUMBER EACH STONE. STORE IN A SAFE PLACE APPROVED BY THE OWNER. REMOVE ALL RUST FROM THE EXPOSED STEEL FRAMING. CONTACT THE ARCHITECT & STRUCTURAL ENGINEER TO PERFORM A REVIEW OF THE EXPOSED STRUCTURAL STEEL. AUGMENT THE STRUCTURAL STEEL AS DETERMINED BY THE STRUCTURAL ENGINEER. PROVIDE RD ELASTOMETAL OVER ALL EXPOSED STEEL (NEW & EXISTING). FURNISH AND INSTALL ALL NEW STAINLESS STEEL PINS AND ANCHORS FOR THE TOP TWO COURSES OF STONE. CAREFULLY SET THE EXISTING STONE BACK IN PLACE, PLUMB AND IN ALIGNMENT. PROVIDE ALL NEW FLASHING IN CONFORMANCE WITH DETAIL 2/AR503. 100% REPOINT OF ALL MORTAR JOINTS.	43	FURNISH AND INSTALL NEW EMERGENCY OVERFLOW SCUPPERS AT BRICK MASONRY WALL
20	AREA OF PREVIOUSLY REMOVED CHIMNEY - REPLACE ALL BROKEN AND CRACKED BRICK TO MATCH EXISTING ADJACENT		
21	FAILED SEALANT AT EXPANSION JOINT - REMOVE ALL EXISTING SEALANT. FURNISH AND INSTALL NEW EMSEAL COLORSEAL FULL HEIGHT OF JOINT- COLOR TO MATCH EXISTING		

STUART STRE

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GENERAL NOTES 100% ENTIRE BUILDING

- REFER TO PHOTOGRAPHIC REPORT FOR ADDITIONAL INFORMATION
- 100% FAILED SEALANT JOINTS ON ALL FACADES: REMOVE ALL EXISTING SEALANT AND BACKER ROD FROM ALL JOINTS. FURNISH AND INSTALL NEW CONTINUOUS COMPRESSIBLE CLOSED CELL FOAM BACKER ROD AND CONTINUOUS SEALANT (TYP)
- 100% FAILED LIMESTONE MORTAR JOINTS: RAKE OUT AND REMOVE ALL LIMESTONE MORTAR JOINTS. CLEAN AND DRY THE JOINTS AND MAKE FREE OF ALL CONTAMINANTS. FURNISH AND INSTALL NEW MORTAR TO MATCH EXISTING - REFER TO 2/AR-501
- FAILED BRICK MORTAR JOINTS: ALLOW FOR 25% REPOINTING AT BRICK. RAKE OUT AND REMOVE BRICK MORTAR JOINTS. CLEAN AND DRY THE JOINTS AND MAKE FREE OF ALL CONTAMINANTS. FURNISH AND INSTALL NEW MORTAR TO MATCH EXISTING - REFER TO 2/AR-501 (SIM)
- AT ALL EXISTING AND NEW EXPOSED STEEL 100% ON BUILDING (EXPOSED BEFORE AND AFTER DEMOLITION) APPLY 2 COATS RD ELASTOMETAL. SURFACE PREP PER MANUFACTURER'S INSTRUCTIONS
- REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL WINDOW AND LOUVER INFORMATION
- CLEAN AND SEAL ALL BRICK PER SPECIFICATIONS - 100%
- CLEAN LIMESTONE PER SPECIFICATIONS - 100%



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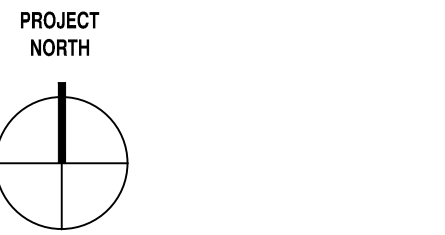
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PROJECT NUMBER: 09007
Construction Documents

DATE: January 20, 2012

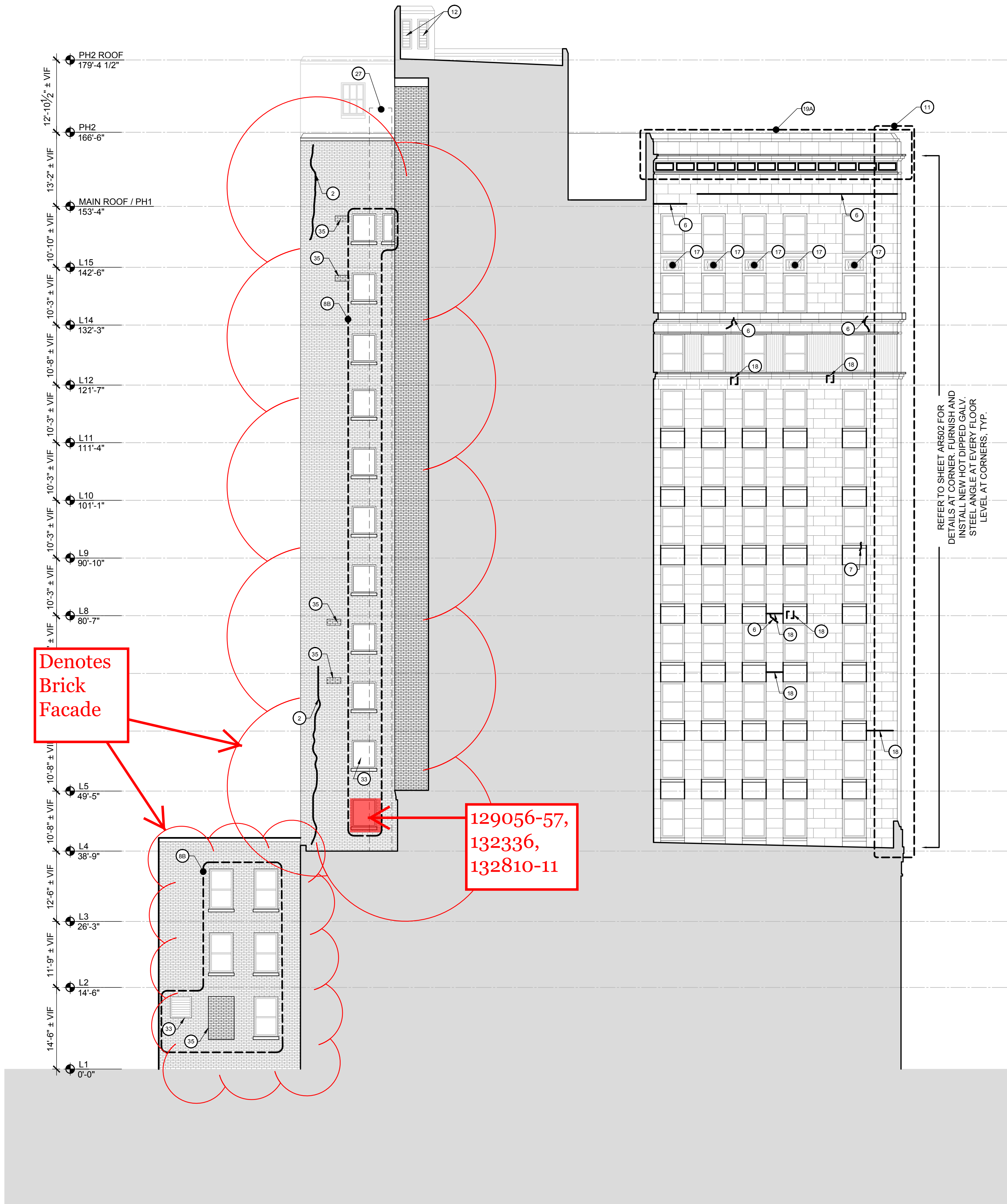
REVISIONS:

DRAWING NAME:
COURT NORTH
ELEVATION

DRAWING NUMBER:

AR205

Figure A.3 Sample Locations

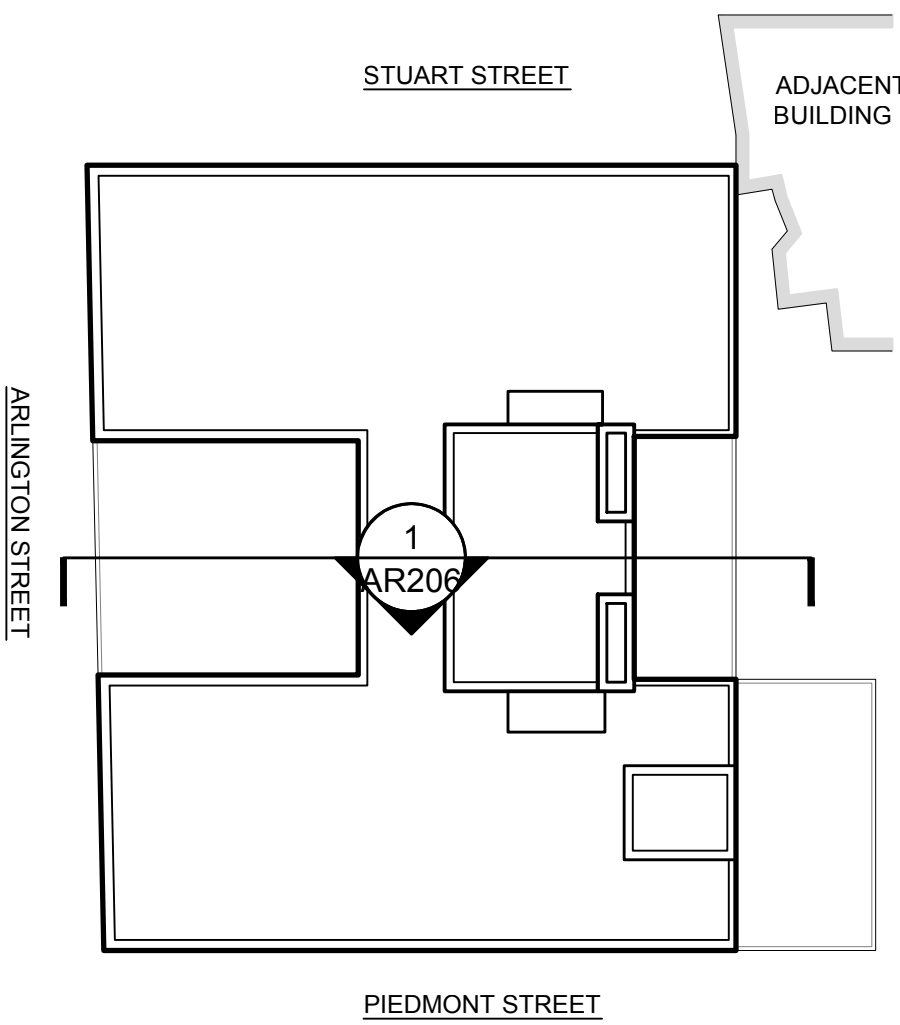


1 COURT SOUTH ELEVATION
SCALE: 3/32"=1'-0"

SYMBOL		ELEVATION KEYNOTES	
2	CRACKED BRICK(S) - RAKE OUT AND REMOVE ALL EXISTING SEALANT, MORTAR AND BRICK A DEPTH OF 3/8" THE FULL HEIGHT AND WIDTH OF CRACK. FURNISH AND INSTALL NEW CONTINUOUS BACKER ROD AND SEALANT.	22	SHIFTED LIMESTONE - REMOVE EXISTING LIMESTONE. REPAIR DAMAGED AREAS PER SHEET AR-502 AND REINSTALL EXISTING STONE
3	HOLE(S) IN MASONRY WALL - REMOVE DAMAGED BRICK CLEAN OUT AND DRY, MAKE FREE OF ALL SEALANT, DUST, RESIDUAL MORTAR AND OTHER SURFACE CONTAMINANTS. INSTALL NEW BRICK MASONRY PER DETAIL 1/AR-501.	23	AT ENTIRE INSIDE ELEVATION OF PARAPET WALLS AND AT PENTHOUSES: -REMOVE EXISTING COPPER STANDING SEAM PANELS ENTIRE LENGTH OF PARAPET WALLS -DESCALE AND APPLY 2 COATS RD ELASTOMETAL ON ALL EXPOSED METAL (EXPOSED AFTER COPPER STANDING SEAM PANELS ARE REMOVED), SURFACE PREP PER MANUFACTURER'S INSTRUCTIONS. -AT MASONRY: REMOVE ALL LOOSE AND DETERIORATED MATERIALS. PARGE MASONRY TO CREATE SMOOTH SURFACE -AT STEEL: WRAP STEEL WITH USG DUROCK AND METAL STUD FRAMING -INSTALL METAL LATHE AND CONPROCO STRUCTURAL SKIN WITH CONPRO LASTIC. SURFACE PREP PER MANUFACTURER'S INSTRUCTIONS. INSTALL CONTROL JOINTS AS INDICATED ON ELEVATIONS AND AT CORNERS AND PER MANUFACTURERS RECOMMENDATIONS - REFER TO SHEET AR503 FOR TYPICAL DETAILS
4	SPALLED BRICK - TOOTH-OUT EXISTING BRICK AND MORTAR SURROUNDING THEM. FURNISH AND INSTALL NEW BRICK MASONRY (TOOTH-IN) - NEW BRICK AND MORTAR SHALL MATCH THE EXISTING ADJACENT BRICK IN COLOR, TEXTURE, SIZE, SHAPE AND PATTERN. REFER TO DETAIL 1/AR-501.	24	EXISTING SIGNAGE - REMOVE EXISTING SIGNAGE AND REPAIR EXISTING LIMESTONE BEHIND. REFER TO KEYNOTES 1, 3 AND 6. REFER TO ARCHITECTURAL DRAWINGS FOR NEW SIGNAGE ON FACADE
5	PREVIOUSLY REPAIRED CRACKED BRICK AND MORTAR WITH SEALANT - RAKE OUT AND REMOVE ALL EXISTING SEALANT, MORTAR AND BRICK A DEPTH OF 3/8" THE FULL HEIGHT AND WIDTH OF CRACK. FURNISH AND INSTALL NEW CONTINUOUS BACKER ROD AND SEALANT.	25	FURNISH AND INSTALL NEW COPPER FLASHING AT TOP OF PARAPET PER DETAIL 2/AR503 - FULL PERIMETER
6	CRACKED LIMESTONE - REFER TO LIMESTONE REPAIR DETAILS ON SHEET AR-501.	26	HOLE IN LIMESTONE - REFER TO DETAIL 5/AR-501
7	CRACKED OR BROKEN STONE SILL - REFER TO REPAIR DETAILS ON SHEET AR-501.	27	AT AREAS OF REMOVED DUCTWORK AND ATTACHMENTS PATCH/REPAIR OR REPLACE ALL DAMAGED BRICK PER DETAILS 1/AR-501
8	RUSTED & DEFLECTED RELIEVING ANGLE WITH CRACKED BRICKS ABOVE & BELOW THE ANGLES - REMOVE ANGLE AND 5 COURSES OF BRICK ABOVE ANGLE AND 2 COURSES BELOW ANGLE. FURNISH AND INSTALL A NEW ANGLE AND BRICK TO MATCH EXISTING PER DETAIL 1/AR-503	28	CRACK IN GRANITE - PREPARE EXISTING GRANITE AND REPAIR WITH APPROVED REPAIR MATERIAL PER SPECIFICATIONS
8A	AT AREAS INDICATED ON DRAWINGS REMOVE ALL LINTEL ANGLES ABOVE WINDOWS AND 5 COURSES OF BRICK ABOVE THE ANGLE. FURNISH AND INSTALL NEW ANGLE AND SELF ADHERING WATERPROOF MEMBRANE, STAINLESS STEEL FLASHING AND BRICK TO MATCH EXISTING PER DETAIL 1/AR-503 (SIM)	29	CRACKED, ERODED, AND OPEN GRANITE MORTAR JOINTS - RAKE OUT AND REMOVE CRACKED AND ERODED MORTAR JOINTS. CLEAN AND DRY THE JOINTS AND MAKE FREE OF ALL DUST, RESIDUAL MORTAR AND OTHER SURFACE CONTAMINANTS. FURNISH AND INSTALL NEW MORTAR - NEW MORTAR SHALL MATCH EXISTING ADJACENT IN PATTERN, SIZE, AND TOOLING. REFER TO DETAIL 2/AR-501 SIM.
8B	ALTERNATE: AT AREAS INDICATED ON DRAWINGS REMOVE ALL LINTEL ANGLES ABOVE WINDOWS AND 5 COURSES OF BRICK ABOVE THE ANGLE. FURNISH AND INSTALL NEW ANGLE AND SELF ADHERING WATERPROOF MEMBRANE, STAINLESS STEEL FLASHING AND BRICK TO MATCH EXISTING PER DETAIL 1/AR-503 (SIM)	30	REMOVE EXISTING FUTURE/CONDUITS AND ALL ASSOCIATED ATTACHMENTS - REPAIR LIMESTONE PER SHEET AR501
9	SPALLED OR CRACKED CONCRETE - REFER TO DETAILS 9/AR-501 AND 10/AR-501.	31	WATER DAMAGED BRICK AND MORTAR WITH HIGHLY DETERIORATED STEEL LINTEL ANGLES - REMOVE ALL CRACKED BRICKS AND ALL DEBRIS FROM STEEL RELIEVING ANGLE. WIRE BRUSH CLEAN SURFACES OF THE ANGLE, MAKE FREE OF ALL RUST, DIRT AND OTHER SURFACE CONTAMINANTS AND COAT ALL EXPOSED SURFACES OF THE LINTEL ANGLE WITH RD ELASTOMETAL COATING. FURNISH AND INSTALL NEW BRICK AND MORTAR TO MATCH EXISTING AT AREAS OF REMOVED.
10	RUSTED STEEL BRACKET OR MISC. METAL - WIRE BRUSH CLEAN SURFACE OF METAL. MAKE FREE OF ALL RUST, DIRT AND OTHER SURFACE CONTAMINANTS. PRIME AND PAINT EXPOSED SURFACES WITH RUST PROOF COATING - COLOR TO MATCH ORIGINAL.	32	REMOVE EXISTING DETERIORATED SCUPPER & DOWNSPOUT - AND FURNISH AND INSTALL NEW SCUPPER & DOWNSPOUT TO MATCH EXISTING
11	CRACKED & SPALLED LIMESTONE - REFER TO DETAILS ON AR-502 FOR DEMOLITION AND NEW CONSTRUCTION, TYP FULL HEIGHT AS INDICATED ON ELEVATIONS	33	NEW OPENING - REFER TO ARCHITECTURAL DRAWINGS
12	EXISTING LOUVERS - FURNISH AND INSTALL NEW SEALANT AND EMSEAL BACKERSEAL AROUND FULL PERIMETER	35	INFILL EXISTING OPENING AT WALL TO MATCH EXISTING ADJACENT MATERIALS AND REMOVE EXISTING LINTEL - NEW MASONRY AND MORTAR SHALL MATCH THE EXISTING ADJACENT BRICK OR LIMESTONE IN COLOR, TEXTURE, SIZE, SHAPE AND PATTERN. FURNISH AND INSTALL NEW SEALANT, BACKER ROD AND EMSEAL BACKERSEAL THE FULL PERIMETER OF INFILL
13	REMOVE EXISTING WALL PENETRATION/ATTACHMENT - REPAIR ANY ADJACENT CRACKED OR BROKEN BRICK PER DETAIL 1/AR-501	36	FURNISH AND INSTALL NEW GRANITE BASE BELOW AND ON SIDES OF SIDELIGHT - REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS
14	FAILED OR MISSING SEALANT AT TOP OF WALL MOUNTED EQUIPMENT - REMOVE EXISTING SEALANT, FURNISH AND INSTALL NEW BOND BREAKER TAPE AND SEALANT AT THE TOP OF WALL MOUNTED EQUIPMENT. REFER TO DETAIL 7/AR-501	37	FURNISH AND INSTALL NEW LIMESTONE AT DOOR PERIMETER - REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS
15	RUSTED & DEFLECTED RELIEVING ANGLE WITH CRACKED LIMESTONE ABOVE & BELOW THE ANGLES - REMOVE ALL CRACKED LIMESTONE AND ALL DEBRIS FROM STEEL ANGLE. WIRE BRUSH CLEAN SURFACES OF THE ANGLE, MAKE FREE OF ALL RUST, DIRT, AND OTHER SURFACE CONTAMINANTS AND COAT ALL EXPOSED SURFACES WITH RD ELASTOMETAL COATING. FURNISH AND INSTALL NEW LIMESTONE AND MORTAR TO MATCH EXISTING AT AREAS OF REMOVED	38	NEW CANOPY - REFER TO ARCHITECTURAL DRAWINGS. PATCH AND REPAIR EXISTING DAMAGED LIMESTONE AT AREAS OF REMOVED CANOPY AND ATTACHMENTS
16	ABANDONED ANCHOR - REMOVE ABANDONED ANCHOR AND PATCH REMAINING HOLE - REFER TO STONE OR MASONRY PATCH REPAIR DETAIL 8/AR501.	39	FURNISH AND INSTALL NEW 2-PIECE FLASHING AT ROOF TERMINATION PER DETAIL 1/AR505 - 100% FULL PERIMETER
17	RUSTED CAST IRON PANELS - WIRE BRUSH CLEAN SURFACE OF METAL. MAKE FREE OF ALL RUST, DIRT AND OTHER SURFACE CONTAMINANTS. PRIME AND PAINT EXPOSED SURFACES WITH RUST PROOF COATING - COLOR TO MATCH ORIGINAL.	40	FURNISH AND INSTALL WATERPROOF MEMBRANE AND NEW STAINLESS STEEL THROUGH WALL FLASHING WITH NEW CONTINUOUS STAINLESS STEEL CLEAT THE FULL PERIMETER OF PENTHOUSE
18	SPALLED LIMESTONE - REFER TO LIMESTONE PATCHING REPAIR DETAIL 4/AR-501. AT AREAS OF EXPOSED STEEL REMOVE RUST AND APPLY 2 COATS RD ELASTOMETAL ON ALL EXPOSED SURFACES	41	AT ALL EXISTING ABANDONED EXPOSED STEEL ON ELEVATIONS/BACK OF PARAPETS CUT STEEL BACK TO WALL, DESCALE AND APPLY 2 COATS RD ELASTOMETAL. SURFACE PREP PER MANUFACTURER'S RECOMMENDATIONS
19A	REPAIR PARAPET IN PLACE REFER TO SHEET AR301: RAKE OUT AND REMOVE 100% OF ALL MORTAR JOINTS. CLEAN AND DRY THE JOINTS AND MAKE FREE OF ALL CONTAMINANTS. FURNISH AND INSTALL NEW MORTAR PER DETAIL 2/AR501. PATCH & REPAIR THE BACK UP MASONRY AND REPLACE ALL STONE ANCHORS WITH NEW STAINLESS STEEL ANCHORS.	42	FURNISH AND INSTALL NEW CONTINUOUS EMSEAL HORIZONTAL COLORSEAL AT BUILDING TO SIDEWALK JOINTS - FULL PERIMETER. PER DETAIL 9/AR503
19B	REBUILD TOP TWO STONE COURSES REFER TO SHEET AR301: CAREFULLY REMOVE AND NUMBER EACH STONE. STORE IN A SAFE PLACE APPROVED BY THE OWNER. REMOVE ALL RUST FROM THE EXPOSED STEEL FRAMING. CONTACT THE ARCHITECT & STRUCTURAL ENGINEER TO PERFORM A REVIEW OF THE EXPOSED STRUCTURAL STEEL. AUGMENT THE STRUCTURAL STEEL AS DETERMINED BY THE STRUCTURAL ENGINEER. PROVIDE RD ELASTOMETAL OVER ALL EXPOSED STEEL (NEW & EXISTING). FURNISH AND INSTALL ALL NEW STAINLESS STEEL PINS AND ANCHORS FOR THE TOP TWO COURSES OF STONE. CAREFULLY SET THE EXISTING STONE BACK IN PLACE, PLUMB AND IN ALIGNMENT. PROVIDE ALL NEW FLASHING IN CONFORMANCE WITH DETAIL 2/AR503. 100% REPOINT OF ALL MORTAR JOINTS.	43	FURNISH AND INSTALL NEW EMERGENCY OVERFLOW SCUPPERS AT BRICK MASONRY WALL
20	AREA OF PREVIOUSLY REMOVED CHIMNEY - REPLACE ALL BROKEN AND CRACKED BRICK TO MATCH EXISTING ADJACENT		
21	FAILED SEALANT AT EXPANSION JOINT - REMOVE ALL EXISTING SEALANT. FURNISH AND INSTALL NEW EMSEAL COLORSEAL FULL HEIGHT OF JOINT- COLOR TO MATCH EXISTING		

GENERAL NOTES 100% ENTIRE BUILDING

- REFER TO PHOTOGRAPHIC REPORT FOR ADDITIONAL INFORMATION
- 100% FAILED SEALANT JOINTS ON ALL FACADES: REMOVE ALL EXISTING SEALANT AND BACKER ROD FROM ALL JOINTS. FURNISH AND INSTALL NEW CONTINUOUS COMPRESSIBLE CLOSED CELL FOAM BACKER ROD AND CONTINUOUS SEALANT (TYP)
- 100% FAILED LIMESTONE MORTAR JOINTS: RAKE OUT AND REMOVE ALL LIMESTONE MORTAR JOINTS. CLEAN AND DRY THE JOINTS AND MAKE FREE OF ALL CONTAMINANTS. FURNISH AND INSTALL NEW MORTAR TO MATCH EXISTING - REFER TO 2/AR-501
- FAILED BRICK MORTAR JOINTS: ALLOW FOR 25% REPOINTING AT BRICK. RAKE OUT AND REMOVE BRICK MORTAR JOINTS. CLEAN AND DRY THE JOINTS AND MAKE FREE OF ALL CONTAMINANTS. FURNISH AND INSTALL NEW MORTAR TO MATCH EXISTING - REFER TO 2/AR-501 (SIM)
- AT ALL EXISTING AND NEW EXPOSED STEEL 100% ON BUILDING (EXPOSED BEFORE AND AFTER DEMOLITION) APPLY 2 COATS RD ELASTOMETAL. SURFACE PREP PER MANUFACTURER'S INSTRUCTIONS
- REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL WINDOW AND LOUVER INFORMATION
- CLEAN AND SEAL ALL BRICK PER SPECIFICATIONS - 100%
- CLEAN LIMESTONE PER SPECIFICATIONS - 100%



LOCUS PLAN

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ARCHITECTS

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100 ARLINGTON

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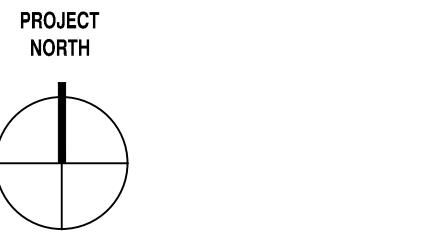
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Boston, MA 02110
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PROJECT NUMBER: 09007
Construction Documents

DATE: January 20, 2012

REVISIONS:

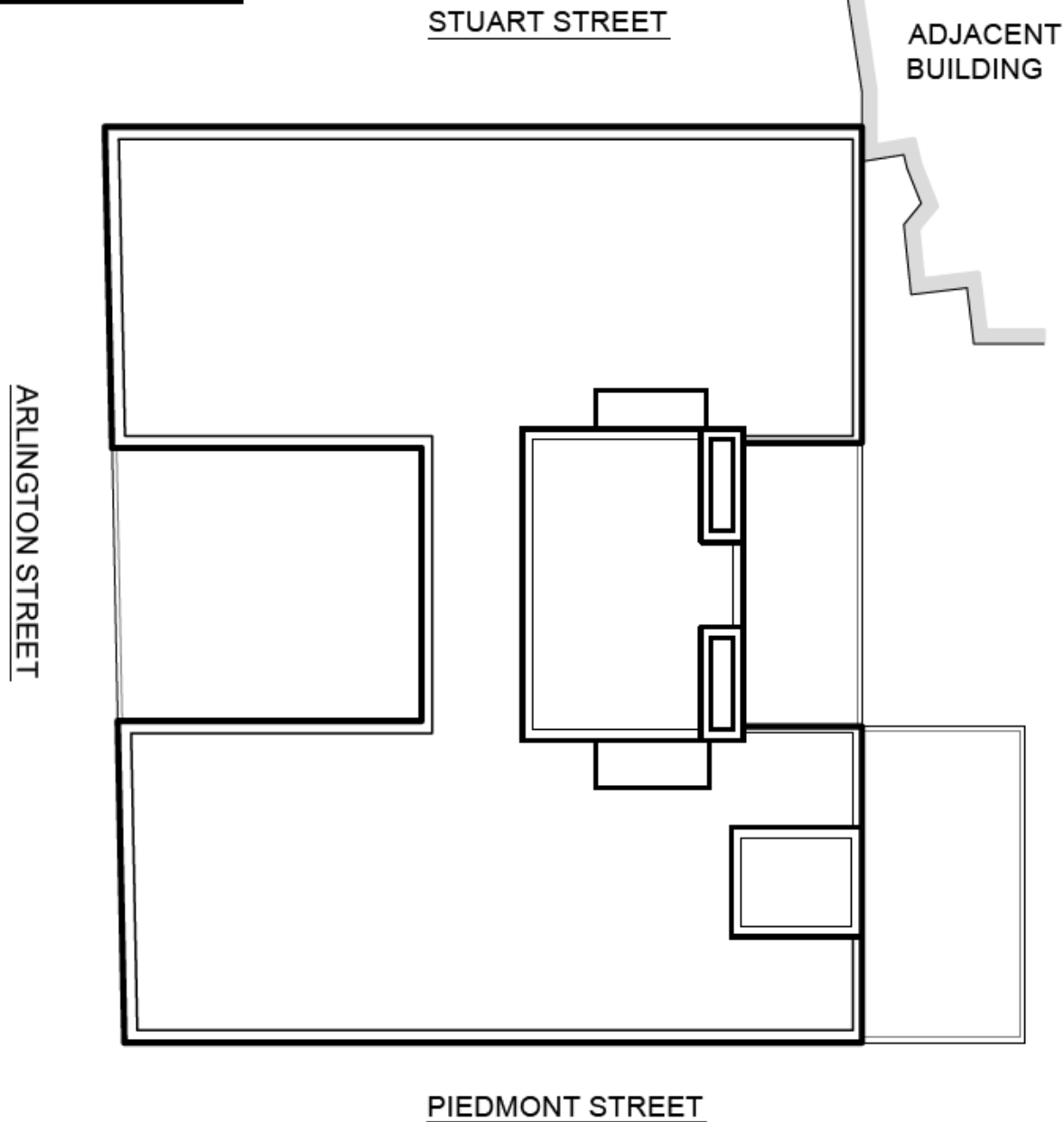
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DRAWING NAME:
COURT SOUTH
ELEVATION

DRAWING NUMBER:

AR206

Figure A.4 Site Locus



LOCUS PLAN

APPENDIX B

LABORATORY REPORTS



ANALYTICAL REPORT

Lab Number:	L1203465
Client:	Environmental Health & Engineering Inc. 117 Fourth Ave Needham, MA 02494
ATTN:	Wayne Carlson
Phone:	(617) 964-8550
Project Name:	Not Specified
Project Number:	18257
Report Date:	03/07/12

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: Not Specified
Project Number: 18257

Lab Number: L1203465
Report Date: 03/07/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1203465-01	130606	Not Specified	02/29/12 15:00
L1203465-02	130607	Not Specified	02/29/12 15:00
L1203465-03	130608	Not Specified	02/29/12 15:00
L1203465-04	130609	Not Specified	02/29/12 15:00
L1203465-05	130610	Not Specified	02/29/12 15:00

Project Name: Not Specified
Project Number: 18257

Lab Number: L1203465
Report Date: 03/07/12

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

Please contact Client Services at 800-624-9220 with any questions.

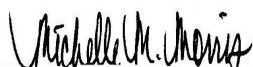
PCBs

L1203465-01 through -05 have elevated detection limits due to the dilutions required by matrix interferences encountered during the concentration of the samples.

L1203465-02: Aroclor 1248 may be present in this sample, however, due to the concentration of Aroclor 1232, the concentration of Aroclor 1248 cannot be accurately quantitated.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 03/07/12

ORGANICS

PCBS

Project Name: Not Specified**Lab Number:** L1203465**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203465-01
Client ID: 130606
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/05/12 12:52
Analyst: KB
Percent Solids: 97%

Date Collected: 02/29/12 15:00
Date Received: 02/29/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/01/12 12:10
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	295	--	5
Aroclor 1221	ND		ug/kg	295	--	5
Aroclor 1232	1520		ug/kg	295	--	5
Aroclor 1242	ND		ug/kg	295	--	5
Aroclor 1248	ND		ug/kg	197	--	5
Aroclor 1254	ND		ug/kg	295	--	5
Aroclor 1260	ND		ug/kg	197	--	5
Aroclor 1262	ND		ug/kg	98.4	--	5
Aroclor 1268	ND		ug/kg	98.4	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	83		30-150
Decachlorobiphenyl	84		30-150
2,4,5,6-Tetrachloro-m-xylene	83		30-150
Decachlorobiphenyl	92		30-150

Project Name: Not Specified**Lab Number:** L1203465**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203465-02
Client ID: 130607
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/07/12 10:27
Analyst: KB
Percent Solids: 85%

Date Collected: 02/29/12 15:00
Date Received: 02/29/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/01/12 12:10
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	342	--	5
Aroclor 1221	ND		ug/kg	342	--	5
Aroclor 1232	6780		ug/kg	342	--	5
Aroclor 1242	ND		ug/kg	342	--	5
Aroclor 1248	ND		ug/kg	228	--	5
Aroclor 1254	ND		ug/kg	342	--	5
Aroclor 1260	ND		ug/kg	228	--	5
Aroclor 1262	ND		ug/kg	114	--	5
Aroclor 1268	ND		ug/kg	114	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	116		30-150
Decachlorobiphenyl	97		30-150
2,4,5,6-Tetrachloro-m-xylene	105		30-150
Decachlorobiphenyl	108		30-150

Project Name: Not Specified**Lab Number:** L1203465**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203465-03
Client ID: 130608
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/05/12 13:19
Analyst: KB
Percent Solids: 91%

Date Collected: 02/29/12 15:00
Date Received: 02/29/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/01/12 12:10
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	317	--	5
Aroclor 1221	ND		ug/kg	317	--	5
Aroclor 1232	ND		ug/kg	317	--	5
Aroclor 1242	ND		ug/kg	317	--	5
Aroclor 1254	ND		ug/kg	317	--	5
Aroclor 1260	ND		ug/kg	211	--	5
Aroclor 1262	ND		ug/kg	106	--	5
Aroclor 1268	ND		ug/kg	106	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	118		30-150
Decachlorobiphenyl	140		30-150
2,4,5,6-Tetrachloro-m-xylene	121		30-150
Decachlorobiphenyl	133		30-150

Project Name: Not Specified**Lab Number:** L1203465**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203465-03
Client ID: 130608
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/05/12 13:19
Analyst: KB
Percent Solids: 91%

Date Collected: 02/29/12 15:00
Date Received: 02/29/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/01/12 12:10
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	3130		ug/kg	211	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	118		30-150
Decachlorobiphenyl	140		30-150
2,4,5,6-Tetrachloro-m-xylene	121		30-150
Decachlorobiphenyl	133		30-150

Project Name: Not Specified**Lab Number:** L1203465**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203465-04
Client ID: 130609
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/05/12 13:32
Analyst: KB
Percent Solids: 96%

Date Collected: 02/29/12 15:00
Date Received: 02/29/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/01/12 12:10
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	289	--	5
Aroclor 1221	ND		ug/kg	289	--	5
Aroclor 1232	ND		ug/kg	289	--	5
Aroclor 1242	ND		ug/kg	289	--	5
Aroclor 1254	ND		ug/kg	289	--	5
Aroclor 1260	ND		ug/kg	193	--	5
Aroclor 1262	ND		ug/kg	96.4	--	5
Aroclor 1268	ND		ug/kg	96.4	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	96		30-150
Decachlorobiphenyl	109		30-150
2,4,5,6-Tetrachloro-m-xylene	103		30-150
Decachlorobiphenyl	115		30-150

Project Name: Not Specified**Lab Number:** L1203465**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203465-04
Client ID: 130609
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/05/12 13:32
Analyst: KB
Percent Solids: 96%

Date Collected: 02/29/12 15:00
Date Received: 02/29/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/01/12 12:10
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	1750		ug/kg	193	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	96		30-150
Decachlorobiphenyl	109		30-150
2,4,5,6-Tetrachloro-m-xylene	103		30-150
Decachlorobiphenyl	115		30-150

Project Name: Not Specified**Lab Number:** L1203465**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203465-05
Client ID: 130610
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/05/12 13:45
Analyst: KB
Percent Solids: 99%

Date Collected: 02/29/12 15:00
Date Received: 02/29/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/01/12 12:10
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	285	--	5
Aroclor 1221	ND		ug/kg	285	--	5
Aroclor 1232	ND		ug/kg	285	--	5
Aroclor 1242	ND		ug/kg	285	--	5
Aroclor 1254	ND		ug/kg	285	--	5
Aroclor 1260	ND		ug/kg	190	--	5
Aroclor 1262	ND		ug/kg	94.9	--	5
Aroclor 1268	ND		ug/kg	94.9	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	82		30-150
Decachlorobiphenyl	93		30-150
2,4,5,6-Tetrachloro-m-xylene	93		30-150
Decachlorobiphenyl	98		30-150

Project Name: Not Specified**Lab Number:** L1203465**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203465-05
Client ID: 130610
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/05/12 13:45
Analyst: KB
Percent Solids: 99%

Date Collected: 02/29/12 15:00
Date Received: 02/29/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/01/12 12:10
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	2190		ug/kg	190	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	82		30-150
Decachlorobiphenyl	93		30-150
2,4,5,6-Tetrachloro-m-xylene	93		30-150
Decachlorobiphenyl	98		30-150

Project Name: Not Specified**Lab Number:** L1203465**Project Number:** 18257**Report Date:** 03/07/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082
 Analytical Date: 03/05/12 13:59
 Analyst: KB

Extraction Method: EPA 3540C
 Extraction Date: 03/01/12 12:10
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/05/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 01-05 Batch: WG520963-1					
Aroclor 1016	ND		ug/kg	56.5	--
Aroclor 1221	ND		ug/kg	56.5	--
Aroclor 1232	ND		ug/kg	56.5	--
Aroclor 1242	ND		ug/kg	56.5	--
Aroclor 1248	ND		ug/kg	37.7	--
Aroclor 1254	ND		ug/kg	56.5	--
Aroclor 1260	ND		ug/kg	37.7	--
Aroclor 1262	ND		ug/kg	18.8	--
Aroclor 1268	ND		ug/kg	18.8	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	91		30-150
Decachlorobiphenyl	112		30-150
2,4,5,6-Tetrachloro-m-xylene	97		30-150
Decachlorobiphenyl	111		30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: Not Specified

Project Number: 18257

Lab Number: L1203465

Report Date: 03/07/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 01-05 Batch: WG520963-2 WG520963-3								
Aroclor 1016	81		77		40-140	5		50
Aroclor 1260	80		76		40-140	5		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	99		88		30-150
Decachlorobiphenyl	114		105		30-150
2,4,5,6-Tetrachloro-m-xylene	102		92		30-150
Decachlorobiphenyl	112		104		30-150

INORGANICS & MISCELLANEOUS

Project Name: Not Specified
Project Number: 18257

Lab Number: L1203465
Report Date: 03/07/12

SAMPLE RESULTS

Lab ID: L1203465-01
Client ID: 130606
Sample Location: Not Specified
Matrix: Solid

Date Collected: 02/29/12 15:00
Date Received: 02/29/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	97		%	0.10	NA	1	-	03/01/12 17:30	30,2540G	MF



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1203465**Report Date:** 03/07/12**SAMPLE RESULTS****Lab ID:** L1203465-02**Client ID:** 130607**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 02/29/12 15:00**Date Received:** 02/29/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85		%	0.10	NA	1	-	03/01/12 17:30	30,2540G	MF



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1203465**Report Date:** 03/07/12**SAMPLE RESULTS****Lab ID:** L1203465-03**Client ID:** 130608**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 02/29/12 15:00**Date Received:** 02/29/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91		%	0.10	NA	1	-	03/01/12 17:30	30,2540G	MF



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1203465**Report Date:** 03/07/12**SAMPLE RESULTS****Lab ID:** L1203465-04**Client ID:** 130609**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 02/29/12 15:00**Date Received:** 02/29/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96		%	0.10	NA	1	-	03/01/12 17:30	30,2540G	MF



Project Name: Not Specified
Project Number: 18257

Lab Number: L1203465
Report Date: 03/07/12

SAMPLE RESULTS

Lab ID: L1203465-05
Client ID: 130610
Sample Location: Not Specified
Matrix: Solid

Date Collected: 02/29/12 15:00
Date Received: 02/29/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	99		%	0.10	NA	1	-	03/01/12 17:30	30,2540G	MF



Project Name: Not Specified
Project Number: 18257

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1203465
Report Date: 03/07/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG521033-1 QC Sample: L1203224-01 Client ID: DUP Sample						
Solids, Total	28	28	%	0		20

Project Name: Not Specified

Lab Number: L1203465

Project Number: 18257

Report Date: 03/07/12

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1203465-01A	Amber 120ml unpreserved	A	N/A	4	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1203465-02A	Amber 120ml unpreserved	A	N/A	4	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1203465-03A	Amber 120ml unpreserved	A	N/A	4	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1203465-04A	Amber 120ml unpreserved	A	N/A	4	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1203465-05A	Amber 120ml unpreserved	A	N/A	4	Y	Absent	TS(7),PCB-8082LL-3540C(14)

*Values in parentheses indicate holding time in days

Project Name: Not Specified

Lab Number: L1203465

Project Number: 18257

Report Date: 03/07/12

GLOSSARY

Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- | | |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A | - Spectra identified as "Aldol Condensation Product". |
| B | - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. |
| C | - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses. |
| D | - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte. |
| E | - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument. |
| G | - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated. |
| H | - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection. |
| I | - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference. |
| M | - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte. |
| NJ | - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search. |

Report Format: Data Usability Report



Project Name: Not Specified
Project Number: 18257

Lab Number: L1203465
Report Date: 03/07/12

Data Qualifiers

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: Not Specified
Project Number: 18257

Lab Number: L1203465
Report Date: 03/07/12

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised January 30, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Page 27 of 30
Non-Potable Water (Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1,

SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3550B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 6020A, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. **NELAP Accredited.**
Drinking Water (Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 1312, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE. Organic Parameters: EPA 3510C, 3005A, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 802A, 8151A, 8260B, 8270C, 8270D, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 3060A, 6010B, 6010C, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S₂⁻D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3005A, 3015, 1312, 6010B, 6010C, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X. Organic Parameters: EPA 8260B)

Solid & Hazardous Waste (Inorganic Parameters: EPA 3050B, 1311, 1312, 6010B, 6010C, 9030B, 9010B, 9012A, 9014. Organic Parameters: EPA 5035, 5030B, 8260B.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A**: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C**: Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625**: 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix, SO₄ in a soil matrix.

DATE: 2/29/12

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

ALPHA Job # W1203465
TO: ALPHA ANALYTICAL

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 18257

The cost of this analysis will be covered by EH&E Purchase Order # 1000605

For EH & E Data Coordinator - URGENT DATA ☐

[illegible]

Special instructions:

- ☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other _____
☐ Fax results 781-247-4305
☐ **RETURN SAMPLES** ☒ Electronic transfer - datacoordinator@eheinc.com
☒ Additional report recipient WCARLSON@EHEINC.COM

Each signatory please return one copy of this form to the above address

Relinquished by: W. Carlson of Environmental Health & Engineering, Inc. Date: 2/29/12

Received by: TRN of (company name) ENG Date: 2/29/12

Relinquished by: Ken CA of (company name) EHE Date: 2/29/12

Received by Kau Mon of (company name) Alpha Date: 2/29/12 1738

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data

Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 1 of 1



ANALYTICAL REPORT

Lab Number:	L1203469
Client:	Environmental Health & Engineering Inc. 117 Fourth Ave Needham, MA 02494
ATTN:	Wayne Carlson
Phone:	(617) 964-8550
Project Name:	Not Specified
Project Number:	18257
Report Date:	03/07/12

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: Not Specified
Project Number: 18257

Lab Number: L1203469
Report Date: 03/07/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1203469-01	130579	Not Specified	02/28/12 00:00
L1203469-02	130580	Not Specified	02/28/12 00:00
L1203469-03	130583	Not Specified	02/28/12 00:00
L1203469-04	130584	Not Specified	02/28/12 00:00
L1203469-05	130585	Not Specified	02/28/12 00:00
L1203469-06	130587	Not Specified	02/28/12 00:00
L1203469-07	130588	Not Specified	02/28/12 00:00
L1203469-08	130589	Not Specified	02/28/12 00:00
L1203469-09	130590	Not Specified	02/28/12 00:00
L1203469-10	130594	Not Specified	02/28/12 00:00
L1203469-11	130595	Not Specified	02/28/12 00:00
L1203469-12	130599	Not Specified	02/28/12 00:00
L1203469-13	130600	Not Specified	02/28/12 00:00
L1203469-14	130602	Not Specified	02/28/12 00:00
L1203469-15	130603	Not Specified	02/28/12 00:00
L1203469-16	130604	Not Specified	02/28/12 00:00
L1203469-17	130605	Not Specified	02/28/12 00:00

Project Name: Not Specified
Project Number: 18257

Lab Number: L1203469
Report Date: 03/07/12

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEX data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

Please contact Client Services at 800-624-9220 with any questions.

PCBs

L1203469-01, -03, -04, -06, -08 and -10 through -17 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

The surrogate recoveries for L1203469-01, -03, -04, -06, -08, -10 through -13, -15, -16 and -17 are below the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene and Decachlorobiphenyl (all 0%) due to the dilutions required to quantitate the samples. Re-extraction was not required; therefore, the results of the original analyses are reported.

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**Case Narrative (continued)**

The surrogate recoveries for the following samples were below the acceptance criteria; however, re-extraction could not be performed due to lack of additional sample. The results of the original analyses are reported:

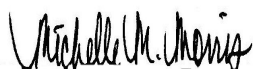
L1203469-02: 2,4,5,6-Tetrachloro-m-xylene (4%/4%); Decachlorobiphenyl (1%/1%)

L1203469-07: 2,4,5,6-Tetrachloro-m-xylene (28%/20%); Decachlorobiphenyl (8%/11%)

The WG520965-4 MS recovery, performed on L1203469-09, is above the acceptance criteria for Aroclor 1016 (254%). The unacceptable percent recovery is attributed to the elevated concentrations of target compounds present in the sample utilized for the MS.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 03/07/12

ORGANICS

PCBS

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-01 D
 Client ID: 130579
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 15:39
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:18
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	45800	--	20
Aroclor 1221	ND		ug/kg	45800	--	20
Aroclor 1232	ND		ug/kg	45800	--	20
Aroclor 1242	ND		ug/kg	45800	--	20
Aroclor 1248	628000		ug/kg	30500	--	20
Aroclor 1260	ND		ug/kg	30500	--	20
Aroclor 1262	ND		ug/kg	15300	--	20
Aroclor 1268	ND		ug/kg	15300	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-01 D
 Client ID: 130579
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 15:39
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:18
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	367000		ug/kg	45800	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-02

Client ID: 130580

Sample Location: Not Specified

Matrix: Solid

Analytical Method: 1,8082

Analytical Date: 03/04/12 16:03

Analyst: SS

Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00

Date Received: 02/29/12

Field Prep: Not Specified

Extraction Method: EPA 3540C

Extraction Date: 03/02/12 19:55

Cleanup Method1: EPA 3665A

Cleanup Date1: 03/04/12

Cleanup Method2: EPA 3660B

Cleanup Date2: 03/04/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	167	--	1
Aroclor 1221	ND		ug/kg	167	--	1
Aroclor 1232	ND		ug/kg	167	--	1
Aroclor 1242	ND		ug/kg	167	--	1
Aroclor 1248	ND		ug/kg	111	--	1
Aroclor 1254	ND		ug/kg	167	--	1
Aroclor 1260	ND		ug/kg	111	--	1
Aroclor 1262	ND		ug/kg	55.6	--	1
Aroclor 1268	ND		ug/kg	55.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	4	Q	30-150
Decachlorobiphenyl	1	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	4	Q	30-150
Decachlorobiphenyl	1	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-03 D
 Client ID: 130583
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 15:52
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:18
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	47600	--	20
Aroclor 1221	ND		ug/kg	47600	--	20
Aroclor 1232	ND		ug/kg	47600	--	20
Aroclor 1242	ND		ug/kg	47600	--	20
Aroclor 1248	1290000		ug/kg	31700	--	20
Aroclor 1254	ND		ug/kg	47600	--	20
Aroclor 1260	ND		ug/kg	31700	--	20
Aroclor 1262	ND		ug/kg	15900	--	20
Aroclor 1268	ND		ug/kg	15900	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-04 D
 Client ID: 130584
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 16:04
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:18
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	24200	--	10
Aroclor 1221	ND		ug/kg	24200	--	10
Aroclor 1232	ND		ug/kg	24200	--	10
Aroclor 1242	ND		ug/kg	24200	--	10
Aroclor 1254	ND		ug/kg	24200	--	10
Aroclor 1260	ND		ug/kg	16100	--	10
Aroclor 1262	ND		ug/kg	8060	--	10
Aroclor 1268	ND		ug/kg	8060	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-04 D
 Client ID: 130584
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 16:04
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:18
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	211000		ug/kg	16100	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-05
Client ID: 130585
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/04/12 16:18
Analyst: SS
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
Date Received: 02/29/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/02/12 19:55
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/04/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/04/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	140	--	1
Aroclor 1221	ND		ug/kg	140	--	1
Aroclor 1232	ND		ug/kg	140	--	1
Aroclor 1242	ND		ug/kg	140	--	1
Aroclor 1248	ND		ug/kg	93.4	--	1
Aroclor 1254	ND		ug/kg	140	--	1
Aroclor 1260	ND		ug/kg	93.4	--	1
Aroclor 1262	ND		ug/kg	46.7	--	1
Aroclor 1268	ND		ug/kg	46.7	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	45		30-150
Decachlorobiphenyl	31		30-150
2,4,5,6-Tetrachloro-m-xylene	43		30-150
Decachlorobiphenyl	35		30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-06 D
 Client ID: 130587
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 16:16
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:18
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	23600	--	10
Aroclor 1221	ND		ug/kg	23600	--	10
Aroclor 1232	ND		ug/kg	23600	--	10
Aroclor 1242	ND		ug/kg	23600	--	10
Aroclor 1260	ND		ug/kg	15700	--	10
Aroclor 1262	ND		ug/kg	7870	--	10
Aroclor 1268	ND		ug/kg	7870	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-06 D
 Client ID: 130587
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 16:16
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:18
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	184000		ug/kg	15700	--	10
Aroclor 1254	285000		ug/kg	23600	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-07

Client ID: 130588

Sample Location: Not Specified

Matrix: Solid

Analytical Method: 1,8082

Analytical Date: 03/04/12 16:34

Analyst: SS

Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00

Date Received: 02/29/12

Field Prep: Not Specified

Extraction Method: EPA 3540C

Extraction Date: 03/02/12 19:55

Cleanup Method1: EPA 3665A

Cleanup Date1: 03/04/12

Cleanup Method2: EPA 3660B

Cleanup Date2: 03/04/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	176	--	1
Aroclor 1221	ND		ug/kg	176	--	1
Aroclor 1232	ND		ug/kg	176	--	1
Aroclor 1242	ND		ug/kg	176	--	1
Aroclor 1248	ND		ug/kg	118	--	1
Aroclor 1254	ND		ug/kg	176	--	1
Aroclor 1260	ND		ug/kg	118	--	1
Aroclor 1262	ND		ug/kg	58.8	--	1
Aroclor 1268	ND		ug/kg	58.8	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	28	Q	30-150
Decachlorobiphenyl	8	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	20	Q	30-150
Decachlorobiphenyl	11	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-08 D
 Client ID: 130589
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 16:29
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:18
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	22600	--	10
Aroclor 1221	ND		ug/kg	22600	--	10
Aroclor 1232	ND		ug/kg	22600	--	10
Aroclor 1242	ND		ug/kg	22600	--	10
Aroclor 1260	ND		ug/kg	15000	--	10
Aroclor 1262	ND		ug/kg	7520	--	10
Aroclor 1268	ND		ug/kg	7520	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-08 D
 Client ID: 130589
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 16:29
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:18
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	262000		ug/kg	15000	--	10
Aroclor 1254	299000		ug/kg	22600	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-09

Client ID: 130590

Sample Location: Not Specified

Matrix: Solid

Analytical Method: 1,8082

Analytical Date: 03/01/12 23:26

Analyst: KB

Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00

Date Received: 02/29/12

Field Prep: Not Specified

Extraction Method: EPA 3580A

Extraction Date: 03/01/12 12:18

Cleanup Method1: EPA 3665A

Cleanup Date1: 03/01/12

Cleanup Method2: EPA 3660B

Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	2590	--	1
Aroclor 1221	ND		ug/kg	2590	--	1
Aroclor 1232	ND		ug/kg	2590	--	1
Aroclor 1242	ND		ug/kg	2590	--	1
Aroclor 1254	ND		ug/kg	2590	--	1
Aroclor 1260	ND		ug/kg	1720	--	1
Aroclor 1262	ND		ug/kg	862	--	1
Aroclor 1268	ND		ug/kg	862	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	112		30-150
Decachlorobiphenyl	105		30-150
2,4,5,6-Tetrachloro-m-xylene	106		30-150
Decachlorobiphenyl	115		30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-09

Client ID: 130590

Sample Location: Not Specified

Matrix: Solid

Analytical Method: 1,8082

Analytical Date: 03/01/12 23:26

Analyst: KB

Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00

Date Received: 02/29/12

Field Prep: Not Specified

Extraction Method: EPA 3580A

Extraction Date: 03/01/12 12:18

Cleanup Method1: EPA 3665A

Cleanup Date1: 03/01/12

Cleanup Method2: EPA 3660B

Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	45900		ug/kg	1720	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	112		30-150
Decachlorobiphenyl	105		30-150
2,4,5,6-Tetrachloro-m-xylene	106		30-150
Decachlorobiphenyl	115		30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-10 D
 Client ID: 130594
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 16:41
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:18
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	23800	--	10
Aroclor 1221	ND		ug/kg	23800	--	10
Aroclor 1232	ND		ug/kg	23800	--	10
Aroclor 1242	ND		ug/kg	23800	--	10
Aroclor 1248	344000		ug/kg	15900	--	10
Aroclor 1260	ND		ug/kg	15900	--	10
Aroclor 1262	ND		ug/kg	7940	--	10
Aroclor 1268	ND		ug/kg	7940	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-10 D
 Client ID: 130594
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 16:41
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:18
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	255000		ug/kg	23800	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-11 D
 Client ID: 130595
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 16:53
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:18
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	22600	--	10
Aroclor 1221	ND		ug/kg	22600	--	10
Aroclor 1232	ND		ug/kg	22600	--	10
Aroclor 1242	ND		ug/kg	22600	--	10
Aroclor 1260	ND		ug/kg	15000	--	10
Aroclor 1262	ND		ug/kg	7520	--	10
Aroclor 1268	ND		ug/kg	7520	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-11 D
 Client ID: 130595
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 16:53
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:18
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	265000		ug/kg	15000	--	10
Aroclor 1254	188000		ug/kg	22600	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-12 D
 Client ID: 130599
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 17:05
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:19
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	24600	--	10
Aroclor 1221	ND		ug/kg	24600	--	10
Aroclor 1232	ND		ug/kg	24600	--	10
Aroclor 1242	ND		ug/kg	24600	--	10
Aroclor 1260	ND		ug/kg	16400	--	10
Aroclor 1262	ND		ug/kg	8200	--	10
Aroclor 1268	ND		ug/kg	8200	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-12 D
 Client ID: 130599
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 17:05
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:19
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	458000		ug/kg	16400	--	10
Aroclor 1254	322000		ug/kg	24600	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-13 D
 Client ID: 130600
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 17:18
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:19
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	49600	--	20
Aroclor 1221	ND		ug/kg	49600	--	20
Aroclor 1232	ND		ug/kg	49600	--	20
Aroclor 1242	ND		ug/kg	49600	--	20
Aroclor 1254	ND		ug/kg	49600	--	20
Aroclor 1260	ND		ug/kg	33000	--	20
Aroclor 1262	ND		ug/kg	16500	--	20
Aroclor 1268	ND		ug/kg	16500	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-13 D
 Client ID: 130600
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 17:18
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:19
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	1260000		ug/kg	33000	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-14 D
 Client ID: 130602
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 17:30
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:19
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	11300	--	5
Aroclor 1221	ND		ug/kg	11300	--	5
Aroclor 1232	ND		ug/kg	11300	--	5
Aroclor 1242	ND		ug/kg	11300	--	5
Aroclor 1254	ND		ug/kg	11300	--	5
Aroclor 1260	ND		ug/kg	7520	--	5
Aroclor 1262	ND		ug/kg	3760	--	5
Aroclor 1268	ND		ug/kg	3760	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	101		30-150
Decachlorobiphenyl	84		30-150
2,4,5,6-Tetrachloro-m-xylene	101		30-150
Decachlorobiphenyl	101		30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-14 D
 Client ID: 130602
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 17:30
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:19
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	146000		ug/kg	7520	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	101		30-150
Decachlorobiphenyl	84		30-150
2,4,5,6-Tetrachloro-m-xylene	101		30-150
Decachlorobiphenyl	101		30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-15 D
 Client ID: 130603
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 17:42
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:19
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	23100	--	10
Aroclor 1221	ND		ug/kg	23100	--	10
Aroclor 1232	ND		ug/kg	23100	--	10
Aroclor 1242	ND		ug/kg	23100	--	10
Aroclor 1260	ND		ug/kg	15400	--	10
Aroclor 1262	ND		ug/kg	7690	--	10
Aroclor 1268	ND		ug/kg	7690	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-15 D
 Client ID: 130603
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 17:42
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:19
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	209000		ug/kg	15400	--	10
Aroclor 1254	223000		ug/kg	23100	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-16 D
 Client ID: 130604
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 17:55
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:19
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	44400	--	20
Aroclor 1221	ND		ug/kg	44400	--	20
Aroclor 1232	ND		ug/kg	44400	--	20
Aroclor 1242	ND		ug/kg	44400	--	20
Aroclor 1254	ND		ug/kg	44400	--	20
Aroclor 1260	ND		ug/kg	29600	--	20
Aroclor 1262	ND		ug/kg	14800	--	20
Aroclor 1268	ND		ug/kg	14800	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-16 D
 Client ID: 130604
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 17:55
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:19
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	1190000		ug/kg	29600	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-17 D
 Client ID: 130605
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 18:07
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:19
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	46500	--	20
Aroclor 1221	ND		ug/kg	46500	--	20
Aroclor 1232	ND		ug/kg	46500	--	20
Aroclor 1242	ND		ug/kg	46500	--	20
Aroclor 1254	304000		ug/kg	46500	--	20
Aroclor 1260	ND		ug/kg	31000	--	20
Aroclor 1262	ND		ug/kg	15500	--	20
Aroclor 1268	ND		ug/kg	15500	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**SAMPLE RESULTS**

Lab ID: L1203469-17 D
 Client ID: 130605
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/02/12 18:07
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 02/29/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:19
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	439000		ug/kg	31000	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082
 Analytical Date: 03/01/12 20:59
 Analyst: KB

Extraction Method: EPA 3580A
 Extraction Date: 03/01/12 12:18
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/01/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 01,03-04,06,08-17 Batch: WG520965-1					
Aroclor 1016	ND		ug/kg	1970	--
Aroclor 1221	ND		ug/kg	1970	--
Aroclor 1232	ND		ug/kg	1970	--
Aroclor 1242	ND		ug/kg	1970	--
Aroclor 1248	ND		ug/kg	1320	--
Aroclor 1254	ND		ug/kg	1970	--
Aroclor 1260	ND		ug/kg	1320	--
Aroclor 1262	ND		ug/kg	658	--
Aroclor 1268	ND		ug/kg	658	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	92		30-150
Decachlorobiphenyl	90		30-150
2,4,5,6-Tetrachloro-m-xylene	88		30-150
Decachlorobiphenyl	95		30-150

Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082
 Analytical Date: 03/04/12 16:49
 Analyst: SS

Extraction Method: EPA 3540C
 Extraction Date: 03/02/12 19:55
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/04/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/04/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 02,05,07 Batch: WG521204-1					
Aroclor 1016	ND		ug/kg	148	--
Aroclor 1221	ND		ug/kg	148	--
Aroclor 1232	ND		ug/kg	148	--
Aroclor 1242	ND		ug/kg	148	--
Aroclor 1248	ND		ug/kg	99.0	--
Aroclor 1254	ND		ug/kg	148	--
Aroclor 1260	ND		ug/kg	99.0	--
Aroclor 1262	ND		ug/kg	49.5	--
Aroclor 1268	ND		ug/kg	49.5	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	104		30-150
Decachlorobiphenyl	95		30-150
2,4,5,6-Tetrachloro-m-xylene	106		30-150
Decachlorobiphenyl	95		30-150

Matrix Spike Analysis

Batch Quality Control

Project Name: Not Specified

Project Number: 18257

Lab Number: L1203469

Report Date: 03/07/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 01,03-04,06,08-17 QC Batch ID: WG520965-4 QC Sample: L1203469-09 Client ID: 130590												
Aroclor 1016	ND	12400	31500	254	Q	-	-		40-140	-		50
Aroclor 1260	ND	12400	12900	104		-	-		40-140	-		50

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	115				30-150
Decachlorobiphenyl	102				30-150
2,4,5,6-Tetrachloro-m-xylene	109				30-150
Decachlorobiphenyl	113				30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: Not Specified

Lab Number: L1203469

Project Number: 18257

Report Date: 03/07/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 01,03-04,06,08-17 Batch: WG520965-2 WG520965-3								
Aroclor 1016	87		97		40-140	11		50
Aroclor 1260	77		89		40-140	14		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	92		104		30-150
Decachlorobiphenyl	81		93		30-150
2,4,5,6-Tetrachloro-m-xylene	94		102		30-150
Decachlorobiphenyl	89		95		30-150

PCB by GC - Westborough Lab Associated sample(s): 02,05,07 Batch: WG521204-2 WG521204-3								
Aroclor 1016	109		118		40-140	8		50
Aroclor 1260	116		121		40-140	4		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	113		115		30-150
Decachlorobiphenyl	108		111		30-150
2,4,5,6-Tetrachloro-m-xylene	110		110		30-150
Decachlorobiphenyl	108		107		30-150

Project Name: Not Specified

Project Number: 18257

Lab Number: L1203469

Report Date: 03/07/12

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1203469-01A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-02A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-03A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-04A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-05A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-06A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-07A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-08A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-09A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-10A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-11A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-12A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-13A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-14A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-15A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-16A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1203469-17A	Amber 120ml unpreserved	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)

*Values in parentheses indicate holding time in days



Project Name: Not Specified

Lab Number: L1203469

Project Number: 18257

Report Date: 03/07/12

GLOSSARY

Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- | | |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A | - Spectra identified as "Aldol Condensation Product". |
| B | - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. |
| C | - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses. |
| D | - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte. |
| E | - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument. |
| G | - The concentration may be biased high due to matrix interferences (i.e., co-elution) with non-target compound(s). The result should be considered estimated. |
| H | - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection. |
| I | - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference. |
| M | - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte. |
| NJ | - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search. |

Report Format: Data Usability Report



Project Name: Not Specified**Lab Number:** L1203469**Project Number:** 18257**Report Date:** 03/07/12**Data Qualifiers**

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: Not Specified
Project Number: 18257

Lab Number: L1203469
Report Date: 03/07/12

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised January 30, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

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Non-Potable Water (Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1,

SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3550B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 6020A, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. **NELAP Accredited.**
Drinking Water (Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 1312, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE. Organic Parameters: EPA 3510C, 3005A, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 802A, 8151A, 8260B, 8270C, 8270D, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 3060A, 6010B, 6010C, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH₃-H. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S₂⁻D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3005A, 3015, 1312, 6010B, 6010C, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X. Organic Parameters: EPA 8260B)

Solid & Hazardous Waste (Inorganic Parameters: EPA 3050B, 1311, 1312, 6010B, 6010C, 9030B, 9010B, 9012A, 9014. Organic Parameters: EPA 5035, 5030B, 8260B.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO₃-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A**: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C**: Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625**: 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix, SO₄ in a soil matrix.

CHAIN OF CUSTODY FORM

DATE: 2/29/12

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

ALPHA Job # L1203469

TO: ALPHA ANALYTICAL

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 18257

The cost of this analysis will be covered by EH&E Purchase Order # 1002605

For EH & E Data Coordinator - URGENT DATA ☐

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER: Time/Date/Vol.
1 130579	CAULK-BULK	EPA 8082 W/SOXHLET EXTRACTION	2/28/12
2 130580			
3 130583		+ DUPLICATE	
4 130584			
5 130585			
6 130587			
7 130588			
8 130589			
9 130590		+ MATRIX SPIKE	
10 130594		+ DUPLICATE	
11 130595			
12 130599			
13 130600			
14 130602			
15 130603			
16 130604			

Special Instructions: ☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other _____
☐ Fax results 781-247-4305 ☒ Electronic transfer - datacoordinator@ehinc.com
☐ RETURN SAMPLES ☒ Additional report recipient WCHARLSON@EHINC.COM

Each signatory please return one copy of this form to the above address

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 2/29/12
Received by: [Signature] of (company name) ALPHA Date: 2/29/12 1500
Relinquished by: [Signature] of (company name) ALPHA Date: 2/29/12 1740
Received by: [Signature] of (company name) Alpha Date: 2/24/12 1740
Relinquished by: _____ of (company name) _____ Date: _____
Received by: _____ of (company name) _____ Date: _____
Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 1 of 1



ANALYTICAL REPORT

Lab Number:	L1204086
Client:	Environmental Health & Engineering Inc. 117 Fourth Ave Needham, MA 02494
ATTN:	Cynthia Campisano
Phone:	(781) 247-4300
Project Name:	Not Specified
Project Number:	18257
Report Date:	03/14/12

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: Not Specified
Project Number: 18257

Lab Number: L1204086
Report Date: 03/14/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1204086-01	130576	Not Specified	02/28/12 00:00
L1204086-02	130577	Not Specified	02/28/12 00:00
L1204086-03	130578	Not Specified	02/28/12 00:00

Project Name: Not Specified
Project Number: 18257

Lab Number: L1204086
Report Date: 03/14/12

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

Please contact Client Services at 800-624-9220 with any questions.

PCBs

L1204086-01 has elevated detection limits due to the dilution required by the matrix interferences encountered during the concentration of the sample and the analytical dilution required by the target compounds present in the sample.

L1204086-02 and -03 have elevated detection limits due to the dilutions required by matrix interferences encountered during the concentration of the samples.

The surrogate recoveries for L1204086-01 are below the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene and Decachlorobiphenyl (all at 0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Project Name: Not Specified
Project Number: 18257

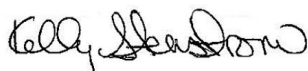
Lab Number: L1204086
Report Date: 03/14/12

Case Narrative (continued)

The surrogate recoveries for L1204086-02 were below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (18%/0%) and Decachlorobiphenyl (7%/7%); however, re-extraction could not be performed due to lack of additional sample. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 03/14/12

ORGANICS

PCBS

Project Name: Not Specified**Lab Number:** L1204086**Project Number:** 18257**Report Date:** 03/14/12**SAMPLE RESULTS**

Lab ID: L1204086-01 D
 Client ID: 130576
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/14/12 13:42
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 03/09/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/12/12 16:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/14/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/14/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	12900	--	100
Aroclor 1221	ND		ug/kg	12900	--	100
Aroclor 1232	ND		ug/kg	12900	--	100
Aroclor 1242	ND		ug/kg	12900	--	100
Aroclor 1248	ND		ug/kg	8620	--	100
Aroclor 1254	128000		ug/kg	12900	--	100
Aroclor 1260	ND		ug/kg	8620	--	100
Aroclor 1262	ND		ug/kg	4310	--	100
Aroclor 1268	ND		ug/kg	4310	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1204086**Project Number:** 18257**Report Date:** 03/14/12**SAMPLE RESULTS**

Lab ID: L1204086-02

Client ID: 130577

Sample Location: Not Specified

Matrix: Solid

Analytical Method: 1,8082

Analytical Date: 03/14/12 12:19

Analyst: KB

Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00

Date Received: 03/09/12

Field Prep: Not Specified

Extraction Method: EPA 3540C

Extraction Date: 03/12/12 16:00

Cleanup Method1: EPA 3665A

Cleanup Date1: 03/14/12

Cleanup Method2: EPA 3660B

Cleanup Date2: 03/14/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	867	--	5
Aroclor 1221	ND		ug/kg	867	--	5
Aroclor 1232	ND		ug/kg	867	--	5
Aroclor 1242	ND		ug/kg	867	--	5
Aroclor 1248	ND		ug/kg	578	--	5
Aroclor 1260	ND		ug/kg	578	--	5
Aroclor 1262	ND		ug/kg	289	--	5
Aroclor 1268	ND		ug/kg	289	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	18	Q	30-150
Decachlorobiphenyl	7	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	7	Q	30-150

Project Name: Not Specified**Lab Number:** L1204086**Project Number:** 18257**Report Date:** 03/14/12**SAMPLE RESULTS**

Lab ID: L1204086-02

Client ID: 130577

Sample Location: Not Specified

Matrix: Solid

Analytical Method: 1,8082

Analytical Date: 03/14/12 12:19

Analyst: KB

Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00

Date Received: 03/09/12

Field Prep: Not Specified

Extraction Method: EPA 3540C

Extraction Date: 03/12/12 16:00

Cleanup Method1: EPA 3665A

Cleanup Date1: 03/14/12

Cleanup Method2: EPA 3660B

Cleanup Date2: 03/14/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	2260		ug/kg	867	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	18	Q	30-150
Decachlorobiphenyl	7	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	7	Q	30-150

Project Name: Not Specified**Lab Number:** L1204086**Project Number:** 18257**Report Date:** 03/14/12**SAMPLE RESULTS**

Lab ID: L1204086-03
 Client ID: 130578
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/14/12 12:44
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 03/09/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/12/12 16:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/14/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/14/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	993	--	5
Aroclor 1221	ND		ug/kg	993	--	5
Aroclor 1232	ND		ug/kg	993	--	5
Aroclor 1242	ND		ug/kg	993	--	5
Aroclor 1248	ND		ug/kg	662	--	5
Aroclor 1260	ND		ug/kg	662	--	5
Aroclor 1262	ND		ug/kg	331	--	5
Aroclor 1268	ND		ug/kg	331	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	91		30-150
Decachlorobiphenyl	102		30-150
2,4,5,6-Tetrachloro-m-xylene	103		30-150
Decachlorobiphenyl	95		30-150

Project Name: Not Specified**Lab Number:** L1204086**Project Number:** 18257**Report Date:** 03/14/12**SAMPLE RESULTS**

Lab ID: L1204086-03

Client ID: 130578

Sample Location: Not Specified

Matrix: Solid

Analytical Method: 1,8082

Analytical Date: 03/14/12 12:44

Analyst: KB

Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00

Date Received: 03/09/12

Field Prep: Not Specified

Extraction Method: EPA 3540C

Extraction Date: 03/12/12 16:00

Cleanup Method1: EPA 3665A

Cleanup Date1: 03/14/12

Cleanup Method2: EPA 3660B

Cleanup Date2: 03/14/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	1810		ug/kg	993	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	91		30-150
Decachlorobiphenyl	102		30-150
2,4,5,6-Tetrachloro-m-xylene	103		30-150
Decachlorobiphenyl	95		30-150

Project Name: Not Specified**Lab Number:** L1204086**Project Number:** 18257**Report Date:** 03/14/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082
 Analytical Date: 03/14/12 12:56
 Analyst: KB

Extraction Method: EPA 3540C
 Extraction Date: 03/12/12 16:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/14/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/14/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 01-03 Batch: WG522592-1					
Aroclor 1016	ND		ug/kg	143	--
Aroclor 1221	ND		ug/kg	143	--
Aroclor 1232	ND		ug/kg	143	--
Aroclor 1242	ND		ug/kg	143	--
Aroclor 1248	ND		ug/kg	95.2	--
Aroclor 1254	ND		ug/kg	143	--
Aroclor 1260	ND		ug/kg	95.2	--
Aroclor 1262	ND		ug/kg	47.6	--
Aroclor 1268	ND		ug/kg	47.6	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	85		30-150
Decachlorobiphenyl	87		30-150
2,4,5,6-Tetrachloro-m-xylene	79		30-150
Decachlorobiphenyl	94		30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: Not Specified

Lab Number: L1204086

Project Number: 18257

Report Date: 03/14/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 01-03 Batch: WG522592-2 WG522592-3								
Aroclor 1016	76		78		40-140	3		50
Aroclor 1260	72		73		40-140	1		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	93		82		30-150
Decachlorobiphenyl	88		79		30-150
2,4,5,6-Tetrachloro-m-xylene	87		77		30-150
Decachlorobiphenyl	97		87		30-150

Project Name: Not Specified

Lab Number: L1204086

Project Number: 18257

Report Date: 03/14/12

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1204086-01A	Amber 250ml unpreserved	A	N/A	6	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1204086-02A	Amber 250ml unpreserved	A	N/A	6	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1204086-03A	Amber 250ml unpreserved	A	N/A	6	Y	Absent	TS100(),PCB-8082LL-3540C(14)

*Values in parentheses indicate holding time in days

Project Name: Not Specified

Lab Number: L1204086

Project Number: 18257

Report Date: 03/14/12

GLOSSARY

Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- | | |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A | - Spectra identified as "Aldol Condensation Product". |
| B | - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. |
| C | - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses. |
| D | - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte. |
| E | - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument. |
| G | - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated. |
| H | - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection. |
| I | - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference. |
| M | - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte. |
| NJ | - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search. |

Report Format: Data Usability Report



Project Name: Not Specified**Lab Number:** L1204086**Project Number:** 18257**Report Date:** 03/14/12**Data Qualifiers**

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: Not Specified
Project Number: 18257

Lab Number: L1204086
Report Date: 03/14/12

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised January 30, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1,

SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3550B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 6020A, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. **NELAP Accredited.**
Drinking Water (Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 1312, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE. Organic Parameters: EPA 3510C, 3005A, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 802A, 8151A, 8260B, 8270C, 8270D, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 3060A, 6010B, 6010C, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH₃-H. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S₂⁻D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3005A, 3015, 1312, 6010B, 6010C, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X. Organic Parameters: EPA 8260B)

Solid & Hazardous Waste (Inorganic Parameters: EPA 3050B, 1311, 1312, 6010B, 6010C, 9030B, 9010B, 9012A, 9014. Organic Parameters: EPA 5035, 5030B, 8260B.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO₃-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A**: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C**: Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625**: 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix, SO₄ in a soil matrix.

CHAIN OF CUSTODY FORM

DATE:

3/8/12

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO:

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project #

The cost of this analysis will be covered by EH&E Purchase Order #

For EH & E Data Coordinator - URGENT DATA ☐

[illegible]

Special instructions:

- ☒ Standard turn around time

- ☐
- Rush by _____
-
- date/time

- ☐
- Other _____

- ☐ Fax results 781-247-4305

- ☐
- RETURN SAMPLES

- ☒ Electronic transfer - datacoordinator@eheinc.com

- ☒ Additional report recipient

- CCAMPISANO @ EHEINC.COM

Each signatory please return one copy of this form to the above address

Relinquished by: *W. Carlson* of Environmental Health & Engineering, Inc.

Date: 3/8/12

Received by: [Signature] of (company name)

Date: 3/9/12

Relinquished by Wm. C. Burke of (company name)

Date: 3-9-12

Received by: H. A. A. A. of (company name)

Date: 5-9-72

Relinquished by: _____ of (company name)

Date: _____

Received by: _____ of (company name)

Date: _____

Lab Data

Received by: _____ of Environmental Health & Engineering, Inc.

Date: _____

Page 1 of 1



ANALYTICAL REPORT

Lab Number:	L1204538
Client:	Environmental Health & Engineering Inc. 117 Fourth Ave Needham, MA 02494
ATTN:	Cynthia Campisano
Phone:	(781) 247-4300
Project Name:	Not Specified
Project Number:	18257
Report Date:	03/26/12

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: Not Specified
Project Number: 18257

Lab Number: L1204538
Report Date: 03/26/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1204538-01	129047	Not Specified	03/15/12 00:00
L1204538-02	129048	Not Specified	03/15/12 00:00
L1204538-03	129049	Not Specified	03/15/12 00:00
L1204538-04	129050	Not Specified	03/15/12 00:00
L1204538-05	129051	Not Specified	03/15/12 00:00
L1204538-06	129052	Not Specified	03/15/12 00:00
L1204538-07	129053	Not Specified	03/15/12 00:00
L1204538-08	129054	Not Specified	03/15/12 00:00
L1204538-09	129055	Not Specified	03/15/12 00:00
L1204538-10	129056	Not Specified	03/15/12 00:00
L1204538-11	129057	Not Specified	03/15/12 00:00
L1204538-12	129058	Not Specified	03/15/12 00:00
L1204538-13	129059	Not Specified	03/15/12 00:00
L1204538-14	129060	Not Specified	03/15/12 00:00
L1204538-15	129061	Not Specified	03/15/12 00:00
L1204538-16	130586	Not Specified	02/28/12 00:00
L1204538-17	130596	Not Specified	02/28/12 00:00

Project Name: Not Specified
Project Number: 18257

Lab Number: L1204538
Report Date: 03/26/12

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

Please contact Client Services at 800-624-9220 with any questions.

Sample Receipt

Samples "130586" and "130596" were received with the method required holding time exceeded for PCBs and were analyzed at the client's request.

PCBs

L1204538-01, -05, -06, -10, -11, -13 and -14 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

L1204538-12 has elevated detection limits due to the dilution required by the matrix interferences encountered during the concentration of the sample and the analytical dilution required by the target compounds present in

Project Name: Not Specified
Project Number: 18257

Lab Number: L1204538
Report Date: 03/26/12

Case Narrative (continued)

the sample.

L1204538-16 has elevated detection limits due to limited sample volume available for analysis.

L1204538-17 has elevated detection limits due to the dilution required by matrix interferences encountered during the concentration of the sample due to limited sample volume available for analysis

The surrogate recoveries for L1204538-10, -11 and -12 are below the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene and Decachlorobiphenyl (all at 0%) due to the dilutions required to quantitate the samples. Re-extraction was not required; therefore, the results of the original analyses are reported.

The surrogate recoveries for L1204538-17 were outside the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene (6%/6%) and Decachlorobiphenyl (7%/6%); however, re-extraction could not be performed due to lack of additional sample. The results of the original analysis are reported.

The WG524415-3 LCSD recoveries, associated with L1204538-01 through -09, -11, -14 and -15, were below the acceptance criteria for Aroclor 1016 (6%) and Aroclor 1260 (6%); however, the associated LCS recoveries were within the method limits.

The WG524415-2/-3 LCS/LCSD RPDs, associated with L1204538-01 through -09, -11, -14 and -15, are above the acceptance criteria for Aroclor 1016 (165%) and Aroclor 1260 (159%).

The surrogate recoveries for the WG524415-3 LCSD, associated with L1204538-01 through -09, -11, -14 and -15, are below the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene (9%/8%) and Decachlorobiphenyl (5%/7%).

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Elizabeth Simmons

Title: Technical Director/Representative

Date: 03/26/12

ORGANICS

PCBS

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-01 **D**
Client ID: 129047
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/23/12 11:57
Analyst: KB
Percent Solids: 100%

Date Collected: 03/15/12 00:00
Date Received: 03/16/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/21/12 21:50
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/22/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	104	--	2
Aroclor 1221	ND		ug/kg	104	--	2
Aroclor 1232	ND		ug/kg	104	--	2
Aroclor 1242	ND		ug/kg	104	--	2
Aroclor 1254	ND		ug/kg	104	--	2
Aroclor 1260	ND		ug/kg	69.3	--	2
Aroclor 1262	ND		ug/kg	34.7	--	2
Aroclor 1268	ND		ug/kg	34.7	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	82		30-150
Decachlorobiphenyl	67		30-150
2,4,5,6-Tetrachloro-m-xylene	86		30-150
Decachlorobiphenyl	82		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-01 D
 Client ID: 129047
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/23/12 11:57
 Analyst: KB
 Percent Solids: 100%

Date Collected: 03/15/12 00:00
 Date Received: 03/16/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/21/12 21:50
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/22/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	1310		ug/kg	69.3	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	82		30-150
Decachlorobiphenyl	67		30-150
2,4,5,6-Tetrachloro-m-xylene	86		30-150
Decachlorobiphenyl	82		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-02
Client ID: 129048
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/22/12 20:01
Analyst: KB
Percent Solids: 100%

Date Collected: 03/15/12 00:00
Date Received: 03/16/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/21/12 21:50
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/22/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	55.8	--	1
Aroclor 1221	ND		ug/kg	55.8	--	1
Aroclor 1232	ND		ug/kg	55.8	--	1
Aroclor 1242	ND		ug/kg	55.8	--	1
Aroclor 1248	ND		ug/kg	37.2	--	1
Aroclor 1254	ND		ug/kg	55.8	--	1
Aroclor 1260	ND		ug/kg	37.2	--	1
Aroclor 1262	ND		ug/kg	18.6	--	1
Aroclor 1268	ND		ug/kg	18.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	76		30-150
Decachlorobiphenyl	69		30-150
2,4,5,6-Tetrachloro-m-xylene	75		30-150
Decachlorobiphenyl	78		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-03
Client ID: 129049
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/22/12 20:15
Analyst: KB
Percent Solids: 99%

Date Collected: 03/15/12 00:00
Date Received: 03/16/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/21/12 21:50
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/22/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	58.5	--	1
Aroclor 1221	ND		ug/kg	58.5	--	1
Aroclor 1232	ND		ug/kg	58.5	--	1
Aroclor 1242	ND		ug/kg	58.5	--	1
Aroclor 1248	ND		ug/kg	39.0	--	1
Aroclor 1254	ND		ug/kg	58.5	--	1
Aroclor 1260	ND		ug/kg	39.0	--	1
Aroclor 1262	ND		ug/kg	19.5	--	1
Aroclor 1268	ND		ug/kg	19.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	96		30-150
Decachlorobiphenyl	86		30-150
2,4,5,6-Tetrachloro-m-xylene	76		30-150
Decachlorobiphenyl	79		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-04
Client ID: 129050
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/22/12 20:27
Analyst: KB
Percent Solids: 99%

Date Collected: 03/15/12 00:00
Date Received: 03/16/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/21/12 21:50
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/22/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	55.1	--	1
Aroclor 1221	ND		ug/kg	55.1	--	1
Aroclor 1232	ND		ug/kg	55.1	--	1
Aroclor 1242	ND		ug/kg	55.1	--	1
Aroclor 1248	1440		ug/kg	36.7	--	1
Aroclor 1254	ND		ug/kg	55.1	--	1
Aroclor 1260	ND		ug/kg	36.7	--	1
Aroclor 1262	ND		ug/kg	18.4	--	1
Aroclor 1268	ND		ug/kg	18.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	71		30-150
Decachlorobiphenyl	69		30-150
2,4,5,6-Tetrachloro-m-xylene	65		30-150
Decachlorobiphenyl	75		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-05 D
 Client ID: 129051
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/23/12 12:09
 Analyst: KB
 Percent Solids: 99%

Date Collected: 03/15/12 00:00
 Date Received: 03/16/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/21/12 21:50
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/22/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	120	--	2
Aroclor 1221	ND		ug/kg	120	--	2
Aroclor 1232	ND		ug/kg	120	--	2
Aroclor 1242	ND		ug/kg	120	--	2
Aroclor 1248	2530		ug/kg	80.2	--	2
Aroclor 1254	ND		ug/kg	120	--	2
Aroclor 1260	ND		ug/kg	80.2	--	2
Aroclor 1262	ND		ug/kg	40.1	--	2
Aroclor 1268	ND		ug/kg	40.1	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	51		30-150
Decachlorobiphenyl	31		30-150
2,4,5,6-Tetrachloro-m-xylene	38		30-150
Decachlorobiphenyl	37		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-06 D
 Client ID: 129052
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/23/12 12:21
 Analyst: KB
 Percent Solids: 99%

Date Collected: 03/15/12 00:00
 Date Received: 03/16/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/21/12 21:50
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/22/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	297	--	5
Aroclor 1221	ND		ug/kg	297	--	5
Aroclor 1232	ND		ug/kg	297	--	5
Aroclor 1242	ND		ug/kg	297	--	5
Aroclor 1248	3110		ug/kg	198	--	5
Aroclor 1254	ND		ug/kg	297	--	5
Aroclor 1260	290		ug/kg	198	--	5
Aroclor 1262	ND		ug/kg	99.0	--	5
Aroclor 1268	ND		ug/kg	99.0	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	62		30-150
Decachlorobiphenyl	37		30-150
2,4,5,6-Tetrachloro-m-xylene	46		30-150
Decachlorobiphenyl	44		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-07
Client ID: 129053
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/22/12 21:04
Analyst: KB
Percent Solids: 99%

Date Collected: 03/15/12 00:00
Date Received: 03/16/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/21/12 21:50
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/22/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	60.4	--	1
Aroclor 1221	ND		ug/kg	60.4	--	1
Aroclor 1232	ND		ug/kg	60.4	--	1
Aroclor 1242	ND		ug/kg	60.4	--	1
Aroclor 1248	557		ug/kg	40.2	--	1
Aroclor 1254	628		ug/kg	60.4	--	1
Aroclor 1260	247		ug/kg	40.2	--	1
Aroclor 1262	ND		ug/kg	20.1	--	1
Aroclor 1268	ND		ug/kg	20.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	89		30-150
Decachlorobiphenyl	84		30-150
2,4,5,6-Tetrachloro-m-xylene	82		30-150
Decachlorobiphenyl	87		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-08
Client ID: 129054
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/22/12 21:16
Analyst: KB
Percent Solids: 99%

Date Collected: 03/15/12 00:00
Date Received: 03/16/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/21/12 21:50
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/22/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	58.5	--	1
Aroclor 1221	ND		ug/kg	58.5	--	1
Aroclor 1232	ND		ug/kg	58.5	--	1
Aroclor 1242	ND		ug/kg	58.5	--	1
Aroclor 1254	ND		ug/kg	58.5	--	1
Aroclor 1260	ND		ug/kg	39.0	--	1
Aroclor 1262	ND		ug/kg	19.5	--	1
Aroclor 1268	ND		ug/kg	19.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	65		30-150
2,4,5,6-Tetrachloro-m-xylene	63		30-150
Decachlorobiphenyl	74		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-08
Client ID: 129054
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/22/12 21:16
Analyst: KB
Percent Solids: 99%

Date Collected: 03/15/12 00:00
Date Received: 03/16/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/21/12 21:50
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/22/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	733		ug/kg	39.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	65		30-150
2,4,5,6-Tetrachloro-m-xylene	63		30-150
Decachlorobiphenyl	74		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-09
Client ID: 129055
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/22/12 21:28
Analyst: KB
Percent Solids: 100%

Date Collected: 03/15/12 00:00
Date Received: 03/16/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/21/12 21:50
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/22/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	54.0	--	1
Aroclor 1221	ND		ug/kg	54.0	--	1
Aroclor 1232	ND		ug/kg	54.0	--	1
Aroclor 1242	ND		ug/kg	54.0	--	1
Aroclor 1248	ND		ug/kg	36.0	--	1
Aroclor 1254	335		ug/kg	54.0	--	1
Aroclor 1260	680		ug/kg	36.0	--	1
Aroclor 1262	ND		ug/kg	18.0	--	1
Aroclor 1268	ND		ug/kg	18.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	78		30-150
Decachlorobiphenyl	71		30-150
2,4,5,6-Tetrachloro-m-xylene	70		30-150
Decachlorobiphenyl	75		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-10 D
 Client ID: 129056
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/23/12 15:58
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 03/15/12 00:00
 Date Received: 03/16/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/22/12 15:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/23/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/23/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	7960	--	100
Aroclor 1221	ND		ug/kg	7960	--	100
Aroclor 1232	ND		ug/kg	7960	--	100
Aroclor 1242	ND		ug/kg	7960	--	100
Aroclor 1254	ND		ug/kg	7960	--	100
Aroclor 1260	ND		ug/kg	5300	--	100
Aroclor 1262	ND		ug/kg	2650	--	100
Aroclor 1268	ND		ug/kg	2650	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-10 D
 Client ID: 129056
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/23/12 15:58
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 03/15/12 00:00
 Date Received: 03/16/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/22/12 15:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/23/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/23/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	121000		ug/kg	5300	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-11 **D**
Client ID: 129057
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/23/12 12:34
Analyst: KB
Percent Solids: 99%

Date Collected: 03/15/12 00:00
Date Received: 03/16/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/21/12 21:50
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/22/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	1020	--	10
Aroclor 1221	ND		ug/kg	1020	--	10
Aroclor 1232	ND		ug/kg	1020	--	10
Aroclor 1242	ND		ug/kg	1020	--	10
Aroclor 1254	ND		ug/kg	1020	--	10
Aroclor 1260	ND		ug/kg	678	--	10
Aroclor 1262	ND		ug/kg	339	--	10
Aroclor 1268	ND		ug/kg	339	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-11 D
 Client ID: 129057
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/23/12 12:34
 Analyst: KB
 Percent Solids: 99%

Date Collected: 03/15/12 00:00
 Date Received: 03/16/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/21/12 21:50
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/22/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	12700		ug/kg	678	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-12 D
 Client ID: 129058
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/23/12 15:44
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 03/15/12 00:00
 Date Received: 03/16/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/22/12 15:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/23/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/23/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	13500	--	120
Aroclor 1221	ND		ug/kg	13500	--	120
Aroclor 1232	ND		ug/kg	13500	--	120
Aroclor 1242	ND		ug/kg	13500	--	120
Aroclor 1260	ND		ug/kg	9020	--	120
Aroclor 1262	ND		ug/kg	4510	--	120
Aroclor 1268	ND		ug/kg	4510	--	120

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-12 D
 Client ID: 129058
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/23/12 15:44
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 03/15/12 00:00
 Date Received: 03/16/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/22/12 15:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/23/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/23/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	93800		ug/kg	9020	--	120
Aroclor 1254	52400		ug/kg	13500	--	120

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-13 D
 Client ID: 129059
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/25/12 15:20
 Analyst: KB
 Percent Solids: 100%

Date Collected: 03/15/12 00:00
 Date Received: 03/16/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/23/12 16:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/24/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/24/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	280	--	5
Aroclor 1221	ND		ug/kg	280	--	5
Aroclor 1232	ND		ug/kg	280	--	5
Aroclor 1242	ND		ug/kg	280	--	5
Aroclor 1254	657		ug/kg	280	--	5
Aroclor 1260	ND		ug/kg	187	--	5
Aroclor 1262	ND		ug/kg	93.4	--	5
Aroclor 1268	ND		ug/kg	93.4	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	40		30-150
Decachlorobiphenyl	47		30-150
2,4,5,6-Tetrachloro-m-xylene	44		30-150
Decachlorobiphenyl	45		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-13 **D**
Client ID: 129059
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/25/12 15:20
Analyst: KB
Percent Solids: 100%

Date Collected: 03/15/12 00:00
Date Received: 03/16/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/23/12 16:00
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/24/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/24/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	1840		ug/kg	187	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	40		30-150
Decachlorobiphenyl	47		30-150
2,4,5,6-Tetrachloro-m-xylene	44		30-150
Decachlorobiphenyl	45		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-14 D
 Client ID: 129060
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/23/12 12:46
 Analyst: KB
 Percent Solids: 99%

Date Collected: 03/15/12 00:00
 Date Received: 03/16/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/21/12 21:50
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/22/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	119	--	2
Aroclor 1221	ND		ug/kg	119	--	2
Aroclor 1232	ND		ug/kg	119	--	2
Aroclor 1242	ND		ug/kg	119	--	2
Aroclor 1254	ND		ug/kg	119	--	2
Aroclor 1260	ND		ug/kg	79.4	--	2
Aroclor 1262	ND		ug/kg	39.7	--	2
Aroclor 1268	ND		ug/kg	39.7	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	53		30-150
2,4,5,6-Tetrachloro-m-xylene	61		30-150
Decachlorobiphenyl	90		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-14 D
 Client ID: 129060
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/23/12 12:46
 Analyst: KB
 Percent Solids: 99%

Date Collected: 03/15/12 00:00
 Date Received: 03/16/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/21/12 21:50
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/22/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	2070		ug/kg	79.4	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	53		30-150
2,4,5,6-Tetrachloro-m-xylene	61		30-150
Decachlorobiphenyl	90		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-15
Client ID: 129061
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/22/12 22:18
Analyst: KB
Percent Solids: 99%

Date Collected: 03/15/12 00:00
Date Received: 03/16/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/21/12 21:50
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/22/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	59.4	--	1
Aroclor 1221	ND		ug/kg	59.4	--	1
Aroclor 1232	ND		ug/kg	59.4	--	1
Aroclor 1242	ND		ug/kg	59.4	--	1
Aroclor 1254	ND		ug/kg	59.4	--	1
Aroclor 1260	ND		ug/kg	39.6	--	1
Aroclor 1262	ND		ug/kg	19.8	--	1
Aroclor 1268	ND		ug/kg	19.8	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	54		30-150
Decachlorobiphenyl	51		30-150
2,4,5,6-Tetrachloro-m-xylene	49		30-150
Decachlorobiphenyl	68		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-15
Client ID: 129061
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/22/12 22:18
Analyst: KB
Percent Solids: 99%

Date Collected: 03/15/12 00:00
Date Received: 03/16/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/21/12 21:50
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/22/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	507		ug/kg	39.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	54		30-150
Decachlorobiphenyl	51		30-150
2,4,5,6-Tetrachloro-m-xylene	49		30-150
Decachlorobiphenyl	68		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-16
 Client ID: 130586
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 03/22/12 03:04
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00
 Date Received: 03/16/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/19/12 15:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/20/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/20/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	263	--	1
Aroclor 1221	ND		ug/kg	263	--	1
Aroclor 1232	ND		ug/kg	263	--	1
Aroclor 1242	ND		ug/kg	263	--	1
Aroclor 1248	ND		ug/kg	175	--	1
Aroclor 1254	ND		ug/kg	263	--	1
Aroclor 1260	ND		ug/kg	175	--	1
Aroclor 1262	ND		ug/kg	87.7	--	1
Aroclor 1268	ND		ug/kg	87.7	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	64		30-150
Decachlorobiphenyl	58		30-150
2,4,5,6-Tetrachloro-m-xylene	68		30-150
Decachlorobiphenyl	56		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**SAMPLE RESULTS**

Lab ID: L1204538-17

Client ID: 130596

Sample Location: Not Specified

Matrix: Solid

Analytical Method: 1,8082

Analytical Date: 03/21/12 09:16

Analyst: KB

Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 02/28/12 00:00

Date Received: 03/16/12

Field Prep: Not Specified

Extraction Method: EPA 3540C

Extraction Date: 03/19/12 15:00

Cleanup Method1: EPA 3665A

Cleanup Date1: 03/20/12

Cleanup Method2: EPA 3660B

Cleanup Date2: 03/20/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	408	--	2
Aroclor 1221	ND		ug/kg	408	--	2
Aroclor 1232	ND		ug/kg	408	--	2
Aroclor 1242	ND		ug/kg	408	--	2
Aroclor 1248	ND		ug/kg	272	--	2
Aroclor 1254	ND		ug/kg	408	--	2
Aroclor 1260	ND		ug/kg	272	--	2
Aroclor 1262	ND		ug/kg	136	--	2
Aroclor 1268	ND		ug/kg	136	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	6	Q	30-150
Decachlorobiphenyl	7	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	6	Q	30-150
Decachlorobiphenyl	6	Q	30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082
 Analytical Date: 03/21/12 08:23
 Analyst: KB

Extraction Method: EPA 3540C
 Extraction Date: 03/19/12 15:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/20/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/20/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 16-17 Batch: WG523866-1					
Aroclor 1016	ND		ug/kg	199	--
Aroclor 1221	ND		ug/kg	199	--
Aroclor 1232	ND		ug/kg	199	--
Aroclor 1242	ND		ug/kg	199	--
Aroclor 1248	ND		ug/kg	132	--
Aroclor 1254	ND		ug/kg	199	--
Aroclor 1260	ND		ug/kg	132	--
Aroclor 1262	ND		ug/kg	66.2	--
Aroclor 1268	ND		ug/kg	66.2	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	92		30-150
Decachlorobiphenyl	117		30-150
2,4,5,6-Tetrachloro-m-xylene	97		30-150
Decachlorobiphenyl	100		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082
 Analytical Date: 03/22/12 22:42
 Analyst: KB

Extraction Method: EPA 3540C
 Extraction Date: 03/21/12 21:50
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/22/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/22/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 01-09,11,14-15 Batch: WG524415-1					
Aroclor 1016	ND		ug/kg	57.7	--
Aroclor 1221	ND		ug/kg	57.7	--
Aroclor 1232	ND		ug/kg	57.7	--
Aroclor 1242	ND		ug/kg	57.7	--
Aroclor 1248	ND		ug/kg	38.5	--
Aroclor 1254	ND		ug/kg	57.7	--
Aroclor 1260	ND		ug/kg	38.5	--
Aroclor 1262	ND		ug/kg	19.2	--
Aroclor 1268	ND		ug/kg	19.2	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	104		30-150
Decachlorobiphenyl	81		30-150
2,4,5,6-Tetrachloro-m-xylene	87		30-150
Decachlorobiphenyl	89		30-150

Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082
 Analytical Date: 03/23/12 11:06
 Analyst: KB

Extraction Method: EPA 3540C
 Extraction Date: 03/22/12 12:10
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/23/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/23/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 10,12 Batch: WG524558-1					
Aroclor 1016	ND		ug/kg	52.9	--
Aroclor 1221	ND		ug/kg	52.9	--
Aroclor 1232	ND		ug/kg	52.9	--
Aroclor 1242	ND		ug/kg	52.9	--
Aroclor 1248	ND		ug/kg	35.3	--
Aroclor 1254	ND		ug/kg	52.9	--
Aroclor 1260	ND		ug/kg	35.3	--
Aroclor 1262	ND		ug/kg	17.6	--
Aroclor 1268	ND		ug/kg	17.6	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	93		30-150
Decachlorobiphenyl	83		30-150
2,4,5,6-Tetrachloro-m-xylene	108		30-150
Decachlorobiphenyl	113		30-150

Project Name: Not Specified
Project Number: 18257

Lab Number: L1204538
Report Date: 03/26/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082
Analytical Date: 03/25/12 15:33
Analyst: KB

Extraction Method: EPA 3540C
Extraction Date: 03/23/12 16:00
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/24/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/24/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 13 Batch: WG524876-1					
Aroclor 1016	ND		ug/kg	57.7	--
Aroclor 1221	ND		ug/kg	57.7	--
Aroclor 1232	ND		ug/kg	57.7	--
Aroclor 1242	ND		ug/kg	57.7	--
Aroclor 1248	ND		ug/kg	38.5	--
Aroclor 1254	ND		ug/kg	57.7	--
Aroclor 1260	ND		ug/kg	38.5	--
Aroclor 1262	ND		ug/kg	19.2	--
Aroclor 1268	ND		ug/kg	19.2	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	77		30-150
2,4,5,6-Tetrachloro-m-xylene	81		30-150
Decachlorobiphenyl	71		30-150

Matrix Spike Analysis

Batch Quality Control

Project Name: Not Specified

Lab Number: L1204538

Project Number: 18257

Report Date: 03/26/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 01-09,11,14-15 QC Batch ID: WG524415-4 QC Sample: L1204538-04 Client ID: 129050												
Aroclor 1016	ND	621	530	85		-	-		40-140	-		50
Aroclor 1260	ND	621	667	107		-	-		40-140	-		50

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	42				30-150
Decachlorobiphenyl	68				30-150
2,4,5,6-Tetrachloro-m-xylene	46				30-150
Decachlorobiphenyl	78				30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: Not Specified

Lab Number: L1204538

Project Number: 18257

Report Date: 03/26/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 16-17 Batch: WG523866-2 WG523866-3								
Aroclor 1016	78		91		40-140	15		50
Aroclor 1260	85		98		40-140	14		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	88		97		30-150
Decachlorobiphenyl	114		131		30-150
2,4,5,6-Tetrachloro-m-xylene	93		99		30-150
Decachlorobiphenyl	98		108		30-150

PCB by GC - Westborough Lab Associated sample(s): 01-09,11,14-15 Batch: WG524415-2 WG524415-3								
Aroclor 1016	58		6	Q	40-140	165	Q	50
Aroclor 1260	51		6	Q	40-140	159	Q	50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	54		9	Q	30-150
Decachlorobiphenyl	43		5	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	49		8	Q	30-150
Decachlorobiphenyl	48		7	Q	30-150

Lab Control Sample Analysis**Batch Quality Control****Project Name:** Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 10,12 Batch: WG524558-2 WG524558-3								
Aroclor 1016	116		101		40-140	14		50
Aroclor 1260	115		114		40-140	1		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	103		89		30-150
Decachlorobiphenyl	94		105		30-150
2,4,5,6-Tetrachloro-m-xylene	98		98		30-150
Decachlorobiphenyl	103		127		30-150

PCB by GC - Westborough Lab Associated sample(s): 13 Batch: WG524876-2 WG524876-3								
Aroclor 1016	63		63		40-140	0		50
Aroclor 1260	63		66		40-140	5		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	75		70		30-150
Decachlorobiphenyl	79		75		30-150
2,4,5,6-Tetrachloro-m-xylene	82		76		30-150
Decachlorobiphenyl	71		67		30-150

INORGANICS & MISCELLANEOUS

Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1204538**Report Date:** 03/26/12**SAMPLE RESULTS****Lab ID:** L1204538-01**Client ID:** 129047**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/15/12 00:00**Date Received:** 03/16/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/19/12 21:26	30,2540G	SM



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1204538**Report Date:** 03/26/12**SAMPLE RESULTS****Lab ID:** L1204538-02**Client ID:** 129048**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/15/12 00:00**Date Received:** 03/16/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/19/12 21:26	30,2540G	SM



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1204538**Report Date:** 03/26/12**SAMPLE RESULTS****Lab ID:** L1204538-03**Client ID:** 129049**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/15/12 00:00**Date Received:** 03/16/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	99		%	0.10	NA	1	-	03/19/12 21:26	30,2540G	SM



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1204538**Report Date:** 03/26/12**SAMPLE RESULTS****Lab ID:** L1204538-04**Client ID:** 129050**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/15/12 00:00**Date Received:** 03/16/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	99		%	0.10	NA	1	-	03/19/12 21:26	30,2540G	SM



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1204538**Report Date:** 03/26/12**SAMPLE RESULTS****Lab ID:** L1204538-05**Client ID:** 129051**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/15/12 00:00**Date Received:** 03/16/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	99		%	0.10	NA	1	-	03/19/12 21:26	30,2540G	SM



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1204538**Report Date:** 03/26/12**SAMPLE RESULTS****Lab ID:** L1204538-06**Client ID:** 129052**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/15/12 00:00**Date Received:** 03/16/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	99		%	0.10	NA	1	-	03/19/12 21:26	30,2540G	SM



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1204538**Report Date:** 03/26/12**SAMPLE RESULTS****Lab ID:** L1204538-07**Client ID:** 129053**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/15/12 00:00**Date Received:** 03/16/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	99		%	0.10	NA	1	-	03/19/12 21:26	30,2540G	SM



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1204538**Report Date:** 03/26/12**SAMPLE RESULTS****Lab ID:** L1204538-08**Client ID:** 129054**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/15/12 00:00**Date Received:** 03/16/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	99		%	0.10	NA	1	-	03/19/12 21:26	30,2540G	SM



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1204538**Report Date:** 03/26/12**SAMPLE RESULTS****Lab ID:** L1204538-09**Client ID:** 129055**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/15/12 00:00**Date Received:** 03/16/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/19/12 21:26	30,2540G	SM



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1204538**Report Date:** 03/26/12**SAMPLE RESULTS****Lab ID:** L1204538-11**Client ID:** 129057**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/15/12 00:00**Date Received:** 03/16/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	99		%	0.10	NA	1	-	03/20/12 16:20	30,2540G	SD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1204538**Report Date:** 03/26/12**SAMPLE RESULTS****Lab ID:** L1204538-13**Client ID:** 129059**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/15/12 00:00**Date Received:** 03/16/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/20/12 16:20	30,2540G	SD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1204538**Report Date:** 03/26/12**SAMPLE RESULTS****Lab ID:** L1204538-14**Client ID:** 129060**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/15/12 00:00**Date Received:** 03/16/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	99		%	0.10	NA	1	-	03/20/12 16:20	30,2540G	SD



Project Name: Not Specified

Lab Number: L1204538

Project Number: 18257

Report Date: 03/26/12

SAMPLE RESULTS

Lab ID: L1204538-15

Date Collected: 03/15/12 00:00

Client ID: 129061

Date Received: 03/16/12

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	99		%	0.10	NA	1	-	03/20/12 16:20	30,2540G	SD



Lab Duplicate Analysis

Batch Quality Control

Project Name: Not Specified

Project Number: 18257

Lab Number: L1204538

Report Date: 03/26/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG523917-1 QC Sample: L1204538-04 Client ID: 129050						
Solids, Total	99	99	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 11,13-15 QC Batch ID: WG524101-1 QC Sample: L1204538-15 Client ID: 129061						
Solids, Total	99	99	%	0		20

Project Name: Not Specified

Project Number: 18257

Lab Number: L1204538

Report Date: 03/26/12

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1204538-01A	Amber 250ml unpreserved	A	N/A	5	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1204538-02A	Amber 250ml unpreserved	A	N/A	5	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1204538-03A	Amber 250ml unpreserved	A	N/A	5	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1204538-04A	Amber 250ml unpreserved	A	N/A	5	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1204538-05A	Amber 250ml unpreserved	A	N/A	5	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1204538-06A	Amber 250ml unpreserved	A	N/A	5	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1204538-07A	Amber 250ml unpreserved	A	N/A	5	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1204538-08A	Amber 250ml unpreserved	A	N/A	5	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1204538-09A	Amber 250ml unpreserved	A	N/A	5	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1204538-10A	Bag	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1204538-11A	Amber 250ml unpreserved	A	N/A	5	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1204538-12A	Bag	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1204538-13A	Amber 250ml unpreserved	A	N/A	5	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1204538-14A	Amber 250ml unpreserved	A	N/A	5	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1204538-15A	Amber 250ml unpreserved	A	N/A	5	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1204538-16A	Bag	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)
L1204538-17A	Bag	A	N/A	5	Y	Absent	TS100(),PCB-8082LL-3540C(14)

Container Comments

L1204538-10A

L1204538-12A

L1204538-16A

L1204538-17A

*Values in parentheses indicate holding time in days



Project Name: Not Specified

Lab Number: L1204538

Project Number: 18257

Report Date: 03/26/12

GLOSSARY

Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
M	- Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
NJ	- Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

Report Format: Data Usability Report



Project Name: Not Specified**Lab Number:** L1204538**Project Number:** 18257**Report Date:** 03/26/12**Data Qualifiers**

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: Not Specified
Project Number: 18257

Lab Number: L1204538
Report Date: 03/26/12

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised January 30, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3550B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 6020A, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. **NELAP Accredited.**
Drinking Water (Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 1312, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE. Organic Parameters: EPA 3510C, 3005A, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 802A, 8151A, 8260B, 8270C, 8270D, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 3060A, 6010B, 6010C, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH₃-H. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S₂⁻D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3005A, 3015, 1312, 6010B, 6010C, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X. Organic Parameters: EPA 8260B)

Solid & Hazardous Waste (Inorganic Parameters: EPA 3050B, 1311, 1312, 6010B, 6010C, 9030B, 9010B, 9012A, 9014. Organic Parameters: EPA 5035, 5030B, 8260B.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO₃-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A**: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C**: Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625**: 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix, SO₄ in a soil matrix.

CHAIN OF CUSTODY FORM

DATE: 3/15/12

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

PHA Job # L1204538
TO: ALPHA ANALYTICAL

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 18257

The cost of this analysis will be covered by EH&E Purchase Order # 1002636

For EH & E Data Coordinator - URGENT DATA ☐

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
129047	BULK	EPA 8082 W/ SOXHLET EXTRACTION	3/15/12
129048			
129049			
129050		INCLUDE MATRIX SPIKE	
129051		EPA 8082 W/ SOXHLET EXTRACTION	
129052			
129053			
129054			
129055			
129056			
129057			
129058			
129059			
129060			
129061			
130586			2/28/12
130596			2/28/12

Special instructions:

☒ Standard turn around time

☐ Rush by _____ date/time

☐ Other _____

☐ Fax results 781-247-4305

☐ RETURN SAMPLES

☒ Electronic transfer - datacoordinator@ehinc.com

☒ Additional report recipient CCAMPISANO@EHINC.COM

Each signatory please return one copy of this form to the above address

Relinquished by: [Signature] of Environmental Health & Engineering, Inc.

Date: 3/15/12

Received by: [Signature] of (company name)

Date: 3-16-12 10:15

Relinquished by: [Signature] of (company name)

Date: 3-16-12

Received by: [Signature] of (company name)

Date: 3-16-12 16:25

Relinquished by: _____ of (company name)

Date: _____

Received by: _____ of (company name)

Date: _____

Lab Data

Received by: _____ of Environmental Health & Engineering, Inc.

Date: _____

Page 1 of 1



ANALYTICAL REPORT

Lab Number:	L1205238
Client:	Environmental Health & Engineering Inc. 117 Fourth Ave Needham, MA 02494
ATTN:	Cynthia Campisano
Phone:	(781) 247-4300
Project Name:	Not Specified
Project Number:	18257
Report Date:	04/04/12

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: Not Specified
Project Number: 18257

Lab Number: L1205238
Report Date: 04/04/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1205238-01	132336	Not Specified	03/27/12 00:00
L1205238-02	132337	Not Specified	03/27/12 00:00
L1205238-03	132338	Not Specified	03/27/12 00:00
L1205238-04	132339	Not Specified	03/27/12 00:00
L1205238-05	132340	Not Specified	03/27/12 00:00
L1205238-06	132341	Not Specified	03/27/12 00:00
L1205238-07	132342	Not Specified	03/27/12 00:00
L1205238-08	132343	Not Specified	03/27/12 00:00
L1205238-09	132344	Not Specified	03/27/12 00:00
L1205238-10	132345	Not Specified	03/27/12 00:00
L1205238-11	132346	Not Specified	03/27/12 00:00
L1205238-12	132347	Not Specified	03/27/12 00:00
L1205238-13	132348	Not Specified	03/27/12 00:00
L1205238-14	132349	Not Specified	03/27/12 00:00
L1205238-15	132350	Not Specified	03/27/12 00:00
L1205238-16	132351	Not Specified	03/27/12 00:00
L1205238-17	132352	Not Specified	03/27/12 00:00
L1205238-18	132353	Not Specified	03/27/12 00:00
L1205238-19	132354	Not Specified	03/27/12 00:00
L1205238-20	132355	Not Specified	03/27/12 00:00

Project Name: Not Specified
Project Number: 18257

Lab Number: L1205238
Report Date: 04/04/12

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

Please contact Client Services at 800-624-9220 with any questions.

PCBs

L1205238-07 and -08 have elevated detection limits due to the dilutions required by matrix interferences encountered during the concentration of the samples.

L1205238-11 has elevated detection limits due to limited sample volume available for analysis.

Project Name: Not Specified
Project Number: 18257

Lab Number: L1205238
Report Date: 04/04/12

Case Narrative (continued)

L1205238-19, -20 and the associated QC were extracted by EPA Method 3580A, as required by the oily matrix of the samples. The requested reporting limits were not achieved.

The surrogate recoveries for L1205238-19 are below the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene and Decachlorobiphenyl (all 0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 04/04/12

ORGANICS

PCBS

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-01
Client ID: 132336
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/01/12 23:22
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	57.1	--	1
Aroclor 1221	ND		ug/kg	57.1	--	1
Aroclor 1232	ND		ug/kg	57.1	--	1
Aroclor 1242	ND		ug/kg	57.1	--	1
Aroclor 1254	248		ug/kg	57.1	--	1
Aroclor 1260	ND		ug/kg	38.1	--	1
Aroclor 1262	ND		ug/kg	19.0	--	1
Aroclor 1268	ND		ug/kg	19.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	71		30-150
2,4,5,6-Tetrachloro-m-xylene	80		30-150
Decachlorobiphenyl	68		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-01
Client ID: 132336
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/01/12 23:22
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	403		ug/kg	38.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	71		30-150
2,4,5,6-Tetrachloro-m-xylene	80		30-150
Decachlorobiphenyl	68		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-02
Client ID: 132337
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/01/12 23:35
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	53.8	--	1
Aroclor 1221	ND		ug/kg	53.8	--	1
Aroclor 1232	ND		ug/kg	53.8	--	1
Aroclor 1242	ND		ug/kg	53.8	--	1
Aroclor 1254	305		ug/kg	53.8	--	1
Aroclor 1260	ND		ug/kg	35.8	--	1
Aroclor 1262	ND		ug/kg	17.9	--	1
Aroclor 1268	ND		ug/kg	17.9	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	78		30-150
Decachlorobiphenyl	80		30-150
2,4,5,6-Tetrachloro-m-xylene	84		30-150
Decachlorobiphenyl	71		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-02
 Client ID: 132337
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/01/12 23:35
 Analyst: SS
 Percent Solids: 100%

Date Collected: 03/27/12 00:00
 Date Received: 03/28/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/29/12 09:20
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	803		ug/kg	35.8	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	78		30-150
Decachlorobiphenyl	80		30-150
2,4,5,6-Tetrachloro-m-xylene	84		30-150
Decachlorobiphenyl	71		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-03
Client ID: 132338
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/01/12 23:48
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	53.7	--	1
Aroclor 1221	ND		ug/kg	53.7	--	1
Aroclor 1232	ND		ug/kg	53.7	--	1
Aroclor 1242	ND		ug/kg	53.7	--	1
Aroclor 1248	838		ug/kg	35.8	--	1
Aroclor 1254	ND		ug/kg	53.7	--	1
Aroclor 1260	ND		ug/kg	35.8	--	1
Aroclor 1262	ND		ug/kg	17.9	--	1
Aroclor 1268	ND		ug/kg	17.9	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	87		30-150
Decachlorobiphenyl	96		30-150
2,4,5,6-Tetrachloro-m-xylene	94		30-150
Decachlorobiphenyl	83		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-04 **D**
Client ID: 132339
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/03/12 19:45
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	110	--	2
Aroclor 1221	ND		ug/kg	110	--	2
Aroclor 1232	ND		ug/kg	110	--	2
Aroclor 1242	ND		ug/kg	110	--	2
Aroclor 1254	ND		ug/kg	110	--	2
Aroclor 1260	ND		ug/kg	73.7	--	2
Aroclor 1262	ND		ug/kg	36.8	--	2
Aroclor 1268	ND		ug/kg	36.8	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	80		30-150
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	69		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-04 D
 Client ID: 132339
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/03/12 19:45
 Analyst: SS
 Percent Solids: 100%

Date Collected: 03/27/12 00:00
 Date Received: 03/28/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/29/12 09:20
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	1790		ug/kg	73.7	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	80		30-150
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	69		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-05
Client ID: 132340
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 00:14
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	55.4	--	1
Aroclor 1221	ND		ug/kg	55.4	--	1
Aroclor 1232	ND		ug/kg	55.4	--	1
Aroclor 1242	ND		ug/kg	55.4	--	1
Aroclor 1254	491		ug/kg	55.4	--	1
Aroclor 1260	198		ug/kg	37.0	--	1
Aroclor 1262	ND		ug/kg	18.5	--	1
Aroclor 1268	ND		ug/kg	18.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	71		30-150
Decachlorobiphenyl	85		30-150
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	76		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-05
Client ID: 132340
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 00:14
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	1540		ug/kg	37.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	71		30-150
Decachlorobiphenyl	85		30-150
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	76		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-06
Client ID: 132341
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 00:28
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	55.0	--	1
Aroclor 1221	ND		ug/kg	55.0	--	1
Aroclor 1232	ND		ug/kg	55.0	--	1
Aroclor 1248	ND		ug/kg	36.7	--	1
Aroclor 1254	ND		ug/kg	55.0	--	1
Aroclor 1260	ND		ug/kg	36.7	--	1
Aroclor 1262	ND		ug/kg	18.3	--	1
Aroclor 1268	ND		ug/kg	18.3	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	83		30-150
2,4,5,6-Tetrachloro-m-xylene	80		30-150
Decachlorobiphenyl	72		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-06
Client ID: 132341
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 00:28
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1242	245		ug/kg	55.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	83		30-150
2,4,5,6-Tetrachloro-m-xylene	80		30-150
Decachlorobiphenyl	72		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-07
Client ID: 132342
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 00:41
Analyst: SS
Percent Solids: 99%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	280	--	5
Aroclor 1221	ND		ug/kg	280	--	5
Aroclor 1232	ND		ug/kg	280	--	5
Aroclor 1242	ND		ug/kg	280	--	5
Aroclor 1262	ND		ug/kg	93.5	--	5
Aroclor 1268	ND		ug/kg	93.5	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	58		30-150
Decachlorobiphenyl	87		30-150
2,4,5,6-Tetrachloro-m-xylene	68		30-150
Decachlorobiphenyl	84		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-07
Client ID: 132342
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 00:41
Analyst: SS
Percent Solids: 99%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	3060		ug/kg	187	--	5
Aroclor 1254	1830		ug/kg	280	--	5
Aroclor 1260	833		ug/kg	187	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	58		30-150
Decachlorobiphenyl	87		30-150
2,4,5,6-Tetrachloro-m-xylene	68		30-150
Decachlorobiphenyl	84		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-08
Client ID: 132343
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/04/12 13:19
Analyst: KB
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/03/12 17:30
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/04/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/04/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	295	--	5
Aroclor 1221	ND		ug/kg	295	--	5
Aroclor 1232	ND		ug/kg	295	--	5
Aroclor 1242	ND		ug/kg	295	--	5
Aroclor 1254	ND		ug/kg	295	--	5
Aroclor 1260	ND		ug/kg	197	--	5
Aroclor 1262	ND		ug/kg	98.4	--	5
Aroclor 1268	ND		ug/kg	98.4	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	96		30-150
Decachlorobiphenyl	112		30-150
2,4,5,6-Tetrachloro-m-xylene	103		30-150
Decachlorobiphenyl	100		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-08
Client ID: 132343
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/04/12 13:19
Analyst: KB
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/03/12 17:30
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/04/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/04/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	822		ug/kg	197	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	96		30-150
Decachlorobiphenyl	112		30-150
2,4,5,6-Tetrachloro-m-xylene	103		30-150
Decachlorobiphenyl	100		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-09
Client ID: 132344
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 01:07
Analyst: SS
Percent Solids: 99%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	54.2	--	1
Aroclor 1221	ND		ug/kg	54.2	--	1
Aroclor 1232	ND		ug/kg	54.2	--	1
Aroclor 1242	ND		ug/kg	54.2	--	1
Aroclor 1254	301		ug/kg	54.2	--	1
Aroclor 1260	163		ug/kg	36.1	--	1
Aroclor 1262	ND		ug/kg	18.1	--	1
Aroclor 1268	ND		ug/kg	18.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	67		30-150
Decachlorobiphenyl	79		30-150
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	68		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-09
Client ID: 132344
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 01:07
Analyst: SS
Percent Solids: 99%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	916		ug/kg	36.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	67		30-150
Decachlorobiphenyl	79		30-150
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	68		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-10
Client ID: 132345
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 01:21
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	54.4	--	1
Aroclor 1221	ND		ug/kg	54.4	--	1
Aroclor 1232	ND		ug/kg	54.4	--	1
Aroclor 1242	ND		ug/kg	54.4	--	1
Aroclor 1254	122		ug/kg	54.4	--	1
Aroclor 1260	ND		ug/kg	36.3	--	1
Aroclor 1262	ND		ug/kg	18.1	--	1
Aroclor 1268	ND		ug/kg	18.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	64		30-150
Decachlorobiphenyl	80		30-150
2,4,5,6-Tetrachloro-m-xylene	71		30-150
Decachlorobiphenyl	67		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-10
Client ID: 132345
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 01:21
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	242		ug/kg	36.3	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	64		30-150
Decachlorobiphenyl	80		30-150
2,4,5,6-Tetrachloro-m-xylene	71		30-150
Decachlorobiphenyl	67		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-11
Client ID: 132346
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/04/12 13:32
Analyst: KB
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/03/12 17:30
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/04/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/04/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	128	--	1
Aroclor 1221	ND		ug/kg	128	--	1
Aroclor 1232	ND		ug/kg	128	--	1
Aroclor 1242	ND		ug/kg	128	--	1
Aroclor 1248	ND		ug/kg	85.1	--	1
Aroclor 1254	ND		ug/kg	128	--	1
Aroclor 1260	ND		ug/kg	85.1	--	1
Aroclor 1262	ND		ug/kg	42.6	--	1
Aroclor 1268	ND		ug/kg	42.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	96		30-150
Decachlorobiphenyl	119		30-150
2,4,5,6-Tetrachloro-m-xylene	103		30-150
Decachlorobiphenyl	101		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-12
Client ID: 132347
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 01:47
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	56.2	--	1
Aroclor 1221	ND		ug/kg	56.2	--	1
Aroclor 1232	ND		ug/kg	56.2	--	1
Aroclor 1242	ND		ug/kg	56.2	--	1
Aroclor 1254	330		ug/kg	56.2	--	1
Aroclor 1260	ND		ug/kg	37.4	--	1
Aroclor 1262	ND		ug/kg	18.7	--	1
Aroclor 1268	ND		ug/kg	18.7	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	80		30-150
Decachlorobiphenyl	89		30-150
2,4,5,6-Tetrachloro-m-xylene	89		30-150
Decachlorobiphenyl	77		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-12
Client ID: 132347
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 01:47
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	659		ug/kg	37.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	80		30-150
Decachlorobiphenyl	89		30-150
2,4,5,6-Tetrachloro-m-xylene	89		30-150
Decachlorobiphenyl	77		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-13
Client ID: 132348
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 02:00
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	55.0	--	1
Aroclor 1221	ND		ug/kg	55.0	--	1
Aroclor 1232	ND		ug/kg	55.0	--	1
Aroclor 1242	ND		ug/kg	55.0	--	1
Aroclor 1248	163		ug/kg	36.7	--	1
Aroclor 1254	140		ug/kg	55.0	--	1
Aroclor 1260	ND		ug/kg	36.7	--	1
Aroclor 1262	ND		ug/kg	18.3	--	1
Aroclor 1268	ND		ug/kg	18.3	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	55		30-150
Decachlorobiphenyl	76		30-150
2,4,5,6-Tetrachloro-m-xylene	60		30-150
Decachlorobiphenyl	62		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-14
Client ID: 132349
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 02:14
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	53.8	--	1
Aroclor 1221	ND		ug/kg	53.8	--	1
Aroclor 1232	ND		ug/kg	53.8	--	1
Aroclor 1242	ND		ug/kg	53.8	--	1
Aroclor 1248	73.1		ug/kg	35.9	--	1
Aroclor 1254	ND		ug/kg	53.8	--	1
Aroclor 1260	ND		ug/kg	35.9	--	1
Aroclor 1262	ND		ug/kg	18.0	--	1
Aroclor 1268	ND		ug/kg	18.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	36		30-150
Decachlorobiphenyl	52		30-150
2,4,5,6-Tetrachloro-m-xylene	41		30-150
Decachlorobiphenyl	45		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-15
Client ID: 132350
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 02:27
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	56.9	--	1
Aroclor 1221	ND		ug/kg	56.9	--	1
Aroclor 1232	ND		ug/kg	56.9	--	1
Aroclor 1242	ND		ug/kg	56.9	--	1
Aroclor 1254	326		ug/kg	56.9	--	1
Aroclor 1260	ND		ug/kg	38.0	--	1
Aroclor 1262	ND		ug/kg	19.0	--	1
Aroclor 1268	ND		ug/kg	19.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	67		30-150
Decachlorobiphenyl	76		30-150
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	63		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-15
Client ID: 132350
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 02:27
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	701		ug/kg	38.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	67		30-150
Decachlorobiphenyl	76		30-150
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	63		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-16
Client ID: 132351
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 02:40
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	52.0	--	1
Aroclor 1221	ND		ug/kg	52.0	--	1
Aroclor 1232	ND		ug/kg	52.0	--	1
Aroclor 1242	ND		ug/kg	52.0	--	1
Aroclor 1254	178		ug/kg	52.0	--	1
Aroclor 1260	107		ug/kg	34.7	--	1
Aroclor 1262	ND		ug/kg	17.3	--	1
Aroclor 1268	ND		ug/kg	17.3	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	86		30-150
2,4,5,6-Tetrachloro-m-xylene	79		30-150
Decachlorobiphenyl	69		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-16
Client ID: 132351
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 02:40
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	338		ug/kg	34.7	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	86		30-150
2,4,5,6-Tetrachloro-m-xylene	79		30-150
Decachlorobiphenyl	69		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-17 D
 Client ID: 132352
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/03/12 19:58
 Analyst: SS
 Percent Solids: 100%

Date Collected: 03/27/12 00:00
 Date Received: 03/28/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/29/12 09:20
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	267	--	5
Aroclor 1221	ND		ug/kg	267	--	5
Aroclor 1232	ND		ug/kg	267	--	5
Aroclor 1242	ND		ug/kg	267	--	5
Aroclor 1254	ND		ug/kg	267	--	5
Aroclor 1260	ND		ug/kg	178	--	5
Aroclor 1262	ND		ug/kg	89.1	--	5
Aroclor 1268	ND		ug/kg	89.1	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	51		30-150
Decachlorobiphenyl	71		30-150
2,4,5,6-Tetrachloro-m-xylene	57		30-150
Decachlorobiphenyl	63		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-17 D
 Client ID: 132352
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/03/12 19:58
 Analyst: SS
 Percent Solids: 100%

Date Collected: 03/27/12 00:00
 Date Received: 03/28/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/29/12 09:20
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	3240		ug/kg	178	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	51		30-150
Decachlorobiphenyl	71		30-150
2,4,5,6-Tetrachloro-m-xylene	57		30-150
Decachlorobiphenyl	63		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-18
Client ID: 132353
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/02/12 03:59
Analyst: SS
Percent Solids: 100%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/29/12 09:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/01/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	55.6	--	1
Aroclor 1221	ND		ug/kg	55.6	--	1
Aroclor 1232	ND		ug/kg	55.6	--	1
Aroclor 1242	ND		ug/kg	55.6	--	1
Aroclor 1248	ND		ug/kg	37.1	--	1
Aroclor 1254	993		ug/kg	55.6	--	1
Aroclor 1260	ND		ug/kg	37.1	--	1
Aroclor 1262	ND		ug/kg	18.6	--	1
Aroclor 1268	ND		ug/kg	18.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	75		30-150
Decachlorobiphenyl	94		30-150
2,4,5,6-Tetrachloro-m-xylene	82		30-150
Decachlorobiphenyl	78		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-19 D
 Client ID: 132354
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/04/12 10:51
 Analyst: KB
 Percent Solids: 99%

Date Collected: 03/27/12 00:00
 Date Received: 03/28/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/29/12 09:30
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/29/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/29/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	45600	--	20
Aroclor 1221	ND		ug/kg	45600	--	20
Aroclor 1232	ND		ug/kg	45600	--	20
Aroclor 1242	ND		ug/kg	45600	--	20
Aroclor 1254	ND		ug/kg	45600	--	20
Aroclor 1260	ND		ug/kg	30400	--	20
Aroclor 1262	ND		ug/kg	15200	--	20
Aroclor 1268	ND		ug/kg	15200	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-19 D
 Client ID: 132354
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/04/12 10:51
 Analyst: KB
 Percent Solids: 99%

Date Collected: 03/27/12 00:00
 Date Received: 03/28/12
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/29/12 09:30
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/29/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/29/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	487000		ug/kg	30400	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**SAMPLE RESULTS**

Lab ID: L1205238-20
Client ID: 132355
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 03/29/12 21:09
Analyst: KB
Percent Solids: 98%

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified
Extraction Method: EPA 3580A
Extraction Date: 03/29/12 09:30
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/29/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/29/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	2890	--	1
Aroclor 1221	ND		ug/kg	2890	--	1
Aroclor 1232	ND		ug/kg	2890	--	1
Aroclor 1242	ND		ug/kg	2890	--	1
Aroclor 1248	ND		ug/kg	1920	--	1
Aroclor 1254	ND		ug/kg	2890	--	1
Aroclor 1260	ND		ug/kg	1920	--	1
Aroclor 1262	ND		ug/kg	963	--	1
Aroclor 1268	ND		ug/kg	963	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	96		30-150
Decachlorobiphenyl	118		30-150
2,4,5,6-Tetrachloro-m-xylene	107		30-150
Decachlorobiphenyl	130		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082
 Analytical Date: 04/02/12 02:53
 Analyst: SS

Extraction Method: EPA 3540C
 Extraction Date: 03/29/12 09:20
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/01/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/01/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 01-07,09-10,12-18 Batch: WG525803-1					
Aroclor 1016	ND		ug/kg	54.6	--
Aroclor 1221	ND		ug/kg	54.6	--
Aroclor 1232	ND		ug/kg	54.6	--
Aroclor 1242	ND		ug/kg	54.6	--
Aroclor 1248	ND		ug/kg	36.4	--
Aroclor 1254	ND		ug/kg	54.6	--
Aroclor 1260	ND		ug/kg	36.4	--
Aroclor 1262	ND		ug/kg	18.2	--
Aroclor 1268	ND		ug/kg	18.2	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	80		30-150
Decachlorobiphenyl	95		30-150
2,4,5,6-Tetrachloro-m-xylene	88		30-150
Decachlorobiphenyl	77		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082
 Analytical Date: 03/29/12 22:48
 Analyst: KB

Extraction Method: EPA 3580A
 Extraction Date: 03/29/12 09:30
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/29/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/29/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 19-20 Batch: WG525832-1					
Aroclor 1016	ND		ug/kg	2420	--
Aroclor 1221	ND		ug/kg	2420	--
Aroclor 1232	ND		ug/kg	2420	--
Aroclor 1242	ND		ug/kg	2420	--
Aroclor 1248	ND		ug/kg	1610	--
Aroclor 1254	ND		ug/kg	2420	--
Aroclor 1260	ND		ug/kg	1610	--
Aroclor 1262	ND		ug/kg	806	--
Aroclor 1268	ND		ug/kg	806	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	83		30-150
Decachlorobiphenyl	87		30-150
2,4,5,6-Tetrachloro-m-xylene	88		30-150
Decachlorobiphenyl	91		30-150

Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082
 Analytical Date: 04/04/12 13:46
 Analyst: KB

Extraction Method: EPA 3540C
 Extraction Date: 04/03/12 17:30
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/04/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/04/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 08,11 Batch: WG526865-1					
Aroclor 1016	ND		ug/kg	58.8	--
Aroclor 1221	ND		ug/kg	58.8	--
Aroclor 1232	ND		ug/kg	58.8	--
Aroclor 1242	ND		ug/kg	58.8	--
Aroclor 1248	ND		ug/kg	39.2	--
Aroclor 1254	ND		ug/kg	58.8	--
Aroclor 1260	ND		ug/kg	39.2	--
Aroclor 1262	ND		ug/kg	19.6	--
Aroclor 1268	ND		ug/kg	19.6	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	93		30-150
Decachlorobiphenyl	120		30-150
2,4,5,6-Tetrachloro-m-xylene	99		30-150
Decachlorobiphenyl	99		30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: Not Specified

Lab Number: L1205238

Project Number: 18257

Report Date: 04/04/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 01-07,09-10,12-18 Batch: WG525803-2 WG525803-3								
Aroclor 1016	68		73		40-140	7		50
Aroclor 1260	78		85		40-140	9		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	59		65		30-150
Decachlorobiphenyl	71		78		30-150
2,4,5,6-Tetrachloro-m-xylene	64		71		30-150
Decachlorobiphenyl	58		64		30-150

PCB by GC - Westborough Lab Associated sample(s): 19-20 Batch: WG525832-2 WG525832-3								
Aroclor 1016	95		101		40-140	6		50
Aroclor 1260	92		99		40-140	7		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	95		99		30-150
Decachlorobiphenyl	106		107		30-150
2,4,5,6-Tetrachloro-m-xylene	103		104		30-150
Decachlorobiphenyl	111		114		30-150

Lab Control Sample Analysis**Batch Quality Control****Project Name:** Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 08,11 Batch: WG526865-2 WG526865-3								
Aroclor 1016	75		72		40-140	4		50
Aroclor 1260	76		79		40-140	4		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	78		84		30-150
Decachlorobiphenyl	109		113		30-150
2,4,5,6-Tetrachloro-m-xylene	84		90		30-150
Decachlorobiphenyl	95		95		30-150

INORGANICS & MISCELLANEOUS

Project Name: Not Specified
Project Number: 18257

Lab Number: L1205238
Report Date: 04/04/12

SAMPLE RESULTS

Lab ID: L1205238-01
Client ID: 132336
Sample Location: Not Specified
Matrix: Solid

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1205238**Report Date:** 04/04/12**SAMPLE RESULTS****Lab ID:** L1205238-02**Client ID:** 132337**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/27/12 00:00**Date Received:** 03/28/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1205238**Report Date:** 04/04/12**SAMPLE RESULTS****Lab ID:** L1205238-03**Client ID:** 132338**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/27/12 00:00**Date Received:** 03/28/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1205238**Report Date:** 04/04/12**SAMPLE RESULTS****Lab ID:** L1205238-04**Client ID:** 132339**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/27/12 00:00**Date Received:** 03/28/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1205238**Report Date:** 04/04/12**SAMPLE RESULTS****Lab ID:** L1205238-05**Client ID:** 132340**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/27/12 00:00**Date Received:** 03/28/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1205238**Report Date:** 04/04/12**SAMPLE RESULTS****Lab ID:** L1205238-06**Client ID:** 132341**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/27/12 00:00**Date Received:** 03/28/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1205238**Report Date:** 04/04/12**SAMPLE RESULTS****Lab ID:** L1205238-07**Client ID:** 132342**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/27/12 00:00**Date Received:** 03/28/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	99		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1205238**Report Date:** 04/04/12**SAMPLE RESULTS****Lab ID:** L1205238-08**Client ID:** 132343**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/27/12 00:00**Date Received:** 03/28/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1205238**Report Date:** 04/04/12**SAMPLE RESULTS****Lab ID:** L1205238-09**Client ID:** 132344**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/27/12 00:00**Date Received:** 03/28/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	99		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1205238**Report Date:** 04/04/12**SAMPLE RESULTS****Lab ID:** L1205238-10**Client ID:** 132345**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/27/12 00:00**Date Received:** 03/28/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1205238**Report Date:** 04/04/12**SAMPLE RESULTS****Lab ID:** L1205238-11**Client ID:** 132346**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/27/12 00:00**Date Received:** 03/28/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1205238**Report Date:** 04/04/12**SAMPLE RESULTS****Lab ID:** L1205238-12**Client ID:** 132347**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/27/12 00:00**Date Received:** 03/28/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified
Project Number: 18257

Lab Number: L1205238
Report Date: 04/04/12

SAMPLE RESULTS

Lab ID: L1205238-13
Client ID: 132348
Sample Location: Not Specified
Matrix: Solid

Date Collected: 03/27/12 00:00
Date Received: 03/28/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified

Lab Number: L1205238

Project Number: 18257

Report Date: 04/04/12

SAMPLE RESULTS

Lab ID: L1205238-14

Date Collected: 03/27/12 00:00

Client ID: 132349

Date Received: 03/28/12

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1205238**Report Date:** 04/04/12**SAMPLE RESULTS****Lab ID:** L1205238-15**Client ID:** 132350**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/27/12 00:00**Date Received:** 03/28/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified

Lab Number: L1205238

Project Number: 18257

Report Date: 04/04/12

SAMPLE RESULTS

Lab ID: L1205238-16

Date Collected: 03/27/12 00:00

Client ID: 132351

Date Received: 03/28/12

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1205238**Report Date:** 04/04/12**SAMPLE RESULTS****Lab ID:** L1205238-17**Client ID:** 132352**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/27/12 00:00**Date Received:** 03/28/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1205238**Report Date:** 04/04/12**SAMPLE RESULTS****Lab ID:** L1205238-18**Client ID:** 132353**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/27/12 00:00**Date Received:** 03/28/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified

Lab Number: L1205238

Project Number: 18257

Report Date: 04/04/12

SAMPLE RESULTS

Lab ID: L1205238-19

Date Collected: 03/27/12 00:00

Client ID: 132354

Date Received: 03/28/12

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	99		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1205238**Report Date:** 04/04/12**SAMPLE RESULTS****Lab ID:** L1205238-20**Client ID:** 132355**Sample Location:** Not Specified**Matrix:** Solid**Date Collected:** 03/27/12 00:00**Date Received:** 03/28/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	98		%	0.10	NA	1	-	03/29/12 19:50	30,2540G	RD



Project Name: Not Specified
Project Number: 18257

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1205238
Report Date: 04/04/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-20 QC Batch ID: WG526013-1 QC Sample: L1205238-04 Client ID: 132339						
Solids, Total	100	100	%	0		20

Project Name: Not Specified

Lab Number: L1205238

Project Number: 18257

Report Date: 04/04/12

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1205238-01A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-02A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-03A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-04A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-05A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-06A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-07A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-08A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-09A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-10A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-11A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-12A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-13A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-14A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-15A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-16A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-17A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-18A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-19A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1205238-20A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)

*Values in parentheses indicate holding time in days



Project Name: Not Specified

Lab Number: L1205238

Project Number: 18257

Report Date: 04/04/12

GLOSSARY

Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- | | |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A | - Spectra identified as "Aldol Condensation Product". |
| B | - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. |
| C | - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses. |
| D | - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte. |
| E | - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument. |
| G | - The concentration may be biased high due to matrix interferences (i.e., co-elution) with non-target compound(s). The result should be considered estimated. |
| H | - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection. |
| I | - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference. |
| M | - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte. |
| NJ | - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search. |

Report Format: Data Usability Report



Project Name: Not Specified**Lab Number:** L1205238**Project Number:** 18257**Report Date:** 04/04/12**Data Qualifiers**

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: Not Specified
Project Number: 18257

Lab Number: L1205238
Report Date: 04/04/12

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised January 30, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3550B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 6020A, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. **NELAP Accredited.**
Drinking Water (Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 1312, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE. Organic Parameters: EPA 3510C, 3005A, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 802A, 8151A, 8260B, 8270C, 8270D, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 3060A, 6010B, 6010C, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH₃-H. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S₂⁻D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3005A, 3015, 1312, 6010B, 6010C, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X. Organic Parameters: EPA 8260B)

Solid & Hazardous Waste (Inorganic Parameters: EPA 3050B, 1311, 1312, 6010B, 6010C, 9030B, 9010B, 9012A, 9014. Organic Parameters: EPA 5035, 5030B, 8260B.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO₃-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A**: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C**: Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625**: 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix, SO₄ in a soil matrix.

CHAIN OF CUSTODY FORM

DATE: 3/28/12

ALPHA JOB # L1205238

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: ALPHA LABS

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 18257

The cost of this analysis will be covered by EH&E Purchase Order # 1002677

For EH & E Data Coordinator - URGENT DATA ☐

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
132336	BULK	EPA 8082 w/SONALLET EXTRACTION	3/27/12
132337			
132338			
132339			
132340			
132341			
132342			
132343			
132344			
132345			
132346			
132347			
132348			
132349			
132350			
132351			

Special instructions:

☒ Standard turn around time

☐ Rush by _____ date/time

☐ Other _____

☐ Fax results 781-247-4305

☐ RETURN SAMPLES

☒ Electronic transfer - datacoordinator@ehinc.com

☒ Additional report recipient

CCAMPISANO@EHEINC.COM

Each signatory please return one copy of this form to the above address

Relinquished by: W. Carlson of Environmental Health & Engineering, Inc. Date: 3/27/12

Received by: Y. SM of (company name) ALPHA Date: 3/28/12 1505

Relinquished by: Y. SM of (company name) ALPHA Date: 3/28/12 1530

Received by: Kate Moss of (company name) Alpha Date: 3/28/12 1550

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data

Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 1 of 2

CHAIN OF CUSTODY FORM

DATE: 3/28/12

ALPHA Job # L1205238
ALPHA Job # L1205238

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: ALPHA LABS

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 18257

The cost of this analysis will be covered by EH&E Purchase Order # 1002677

For EH & E Data Coordinator - URGENT DATA ☐

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
<u>132352</u>	↓	↓	
<u>132353</u>			
<u>132354</u>			
<u>132355</u>			

Special instructions:

- ☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other _____
☐ Fax results 781-247-4305 ☒ Electronic transfer - datacoordinator@ehinc.com
☐ RETURN SAMPLES ☒ Additional report recipient CCAMPISANO @ EHEINC.COM

Each signatory please return one copy of this form to the above address

Relinquished by: W. Carlson of Environmental Health & Engineering, Inc. Date: 3/28/12
Received by: YCH of (company name) ALPHA Date: 3/28/12 1505
Relinquished by: YCH of (company name) ALPHA Date: 3/28/12 1530
Received by: JOE MOSS of (company name) ALPHA Date: 3/28/12 1550
Relinquished by: _____ of (company name) _____ Date: _____
Received by: _____ of (company name) _____ Date: _____
Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 2 of 2



ANALYTICAL REPORT

Lab Number:	L1206478
Client:	Environmental Health & Engineering Inc. 117 Fourth Ave Needham, MA 02494
ATTN:	Cynthia Campisano
Phone:	(781) 247-4300
Project Name:	Not Specified
Project Number:	18257
Report Date:	04/20/12

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: Not Specified
Project Number: 18257

Lab Number: L1206478
Report Date: 04/20/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1206478-01	132787	100 ARLINGTON	04/13/12 09:30
L1206478-02	132788	100 ARLINGTON	04/13/12 09:30
L1206478-03	132789	100 ARLINGTON	04/13/12 09:30
L1206478-04	132790	100 ARLINGTON	04/13/12 09:45
L1206478-05	132791	100 ARLINGTON	04/13/12 09:45
L1206478-06	132792	100 ARLINGTON	04/13/12 10:00
L1206478-07	132793	100 ARLINGTON	04/13/12 10:00
L1206478-08	132794	100 ARLINGTON	04/13/12 10:15
L1206478-09	132795	100 ARLINGTON	04/13/12 10:20
L1206478-10	132796	100 ARLINGTON	04/13/12 10:35
L1206478-11	132797	100 ARLINGTON	04/13/12 10:45
L1206478-12	132798	100 ARLINGTON	04/13/12 11:00
L1206478-13	132799	100 ARLINGTON	04/13/12 11:15
L1206478-14	132800	100 ARLINGTON	04/13/12 11:30
L1206478-15	132801	100 ARLINGTON	04/13/12 11:45
L1206478-16	132802	100 ARLINGTON	04/13/12 12:00
L1206478-17	132803	100 ARLINGTON	04/13/12 12:45
L1206478-18	132804	100 ARLINGTON	04/13/12 13:00
L1206478-19	132805	100 ARLINGTON	04/13/12 13:15
L1206478-20	132806	100 ARLINGTON	04/13/12 13:45
L1206478-21	132807	100 ARLINGTON	04/13/12 14:00
L1206478-22	132808	100 ARLINGTON	04/13/12 14:55
L1206478-23	132809	100 ARLINGTON	04/13/12 14:55
L1206478-24	132810	100 ARLINGTON	04/13/12 15:05
L1206478-25	132811	100 ARLINGTON	04/13/12 15:10
L1206478-26	132812	100 ARLINGTON	04/13/12 15:25
L1206478-27	132813	100 ARLINGTON	04/13/12 15:35

Project Name: Not Specified
Project Number: 18257

Lab Number: L1206478
Report Date: 04/20/12

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

Please contact Client Services at 800-624-9220 with any questions.

Sample Receipt

The samples in cooler A were received at the laboratory above the required temperature range. The samples were transported to the laboratory in a cooler with ice and delivered directly from the sampling site. L1206478-01 through -08 were received on April 16, 2012 @ 17:00. The samples were received in inappropriate containers for the PCB analysis.

Project Name: Not Specified
Project Number: 18257

Lab Number: L1206478
Report Date: 04/20/12

Case Narrative (continued)

PCBs

L1206478-03, -05, and -08 have elevated detection limits due to limited sample volumes available for analyses.

L1206478-04, -07, -14, -15, -20, -22, -24, and -26 have elevated detection limits due to the presence of non-target analytes.

The surrogate recoveries for L1206478-04 were below the acceptance criteria for Decachlorobiphenyl (25%/27%); however, re-extraction could not be performed due to lack of additional sample. The results of the original analysis are reported.

The surrogate recoveries for L1206478-07, -08, -13, -19 and -26 are below the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene and Decachlorobiphenyl (All at 0%) due to the dilutions required to quantitate the samples. Re-extractions were not required; therefore, the results of the original analyses are reported.

The WG529304-4 MS recovery, performed on L1206478-16, is outside the acceptance criteria for Aroclor 1016 (25%); however, the associated LCS/LCSD recoveries are within criteria. No further action was required.

The WG529304-4/-5 MS/MSD RPD, performed on L1206478-16, is above the acceptance criteria for Aroclor 1016 (89%).

The surrogate recoveries for the WG529304-4 MS, performed on L1206478-16 are outside the individual acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene(17%/17%); however, the associated WG529304-5 MSD and native sample had acceptable surrogate recoveries.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Elizabeth Simmons

Title: Technical Director/Representative

Date: 04/20/12

ORGANICS

PCBS

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-01
 Client ID: 132787
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/19/12 12:44
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/13/12 09:30
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/18/12 12:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/19/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/19/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	55.4	--	1
Aroclor 1221	ND		ug/kg	55.4	--	1
Aroclor 1232	ND		ug/kg	55.4	--	1
Aroclor 1242	ND		ug/kg	55.4	--	1
Aroclor 1248	ND		ug/kg	36.9	--	1
Aroclor 1262	ND		ug/kg	18.4	--	1
Aroclor 1268	ND		ug/kg	18.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	33		30-150
Decachlorobiphenyl	28	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	32		30-150
Decachlorobiphenyl	30		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-01
 Client ID: 132787
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/19/12 12:44
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/13/12 09:30
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/18/12 12:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/19/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/19/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	354		ug/kg	55.4	--	1
Aroclor 1260	156		ug/kg	36.9	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	33		30-150
Decachlorobiphenyl	28	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	32		30-150
Decachlorobiphenyl	30		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-02
 Client ID: 132788
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/19/12 12:58
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/13/12 09:30
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/18/12 12:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/19/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/19/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	54.5	--	1
Aroclor 1221	ND		ug/kg	54.5	--	1
Aroclor 1232	ND		ug/kg	54.5	--	1
Aroclor 1242	ND		ug/kg	54.5	--	1
Aroclor 1248	ND		ug/kg	36.4	--	1
Aroclor 1260	139		ug/kg	36.4	--	1
Aroclor 1262	ND		ug/kg	18.2	--	1
Aroclor 1268	ND		ug/kg	18.2	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	58		30-150
Decachlorobiphenyl	55		30-150
2,4,5,6-Tetrachloro-m-xylene	65		30-150
Decachlorobiphenyl	50		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-02
 Client ID: 132788
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/19/12 12:58
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/13/12 09:30
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/18/12 12:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/19/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/19/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	299		ug/kg	54.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	58		30-150
Decachlorobiphenyl	55		30-150
2,4,5,6-Tetrachloro-m-xylene	65		30-150
Decachlorobiphenyl	50		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-03
 Client ID: 132789
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/19/12 13:12
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/13/12 09:30
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/18/12 12:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/19/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/19/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	349	--	1
Aroclor 1221	ND		ug/kg	349	--	1
Aroclor 1232	ND		ug/kg	349	--	1
Aroclor 1242	ND		ug/kg	349	--	1
Aroclor 1248	ND		ug/kg	232	--	1
Aroclor 1254	710		ug/kg	349	--	1
Aroclor 1262	ND		ug/kg	116	--	1
Aroclor 1268	ND		ug/kg	116	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	62		30-150
2,4,5,6-Tetrachloro-m-xylene	75		30-150
Decachlorobiphenyl	64		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-03
 Client ID: 132789
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/19/12 13:12
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/13/12 09:30
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/18/12 12:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/19/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/19/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1260	455		ug/kg	232	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	62		30-150
2,4,5,6-Tetrachloro-m-xylene	75		30-150
Decachlorobiphenyl	64		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-04
 Client ID: 132790
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/19/12 13:26
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/13/12 09:45
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/18/12 12:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/19/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/19/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	276	--	2
Aroclor 1221	ND		ug/kg	276	--	2
Aroclor 1232	ND		ug/kg	276	--	2
Aroclor 1242	ND		ug/kg	276	--	2
Aroclor 1248	ND		ug/kg	184	--	2
Aroclor 1254	351		ug/kg	276	--	2
Aroclor 1262	ND		ug/kg	92.2	--	2
Aroclor 1268	ND		ug/kg	92.2	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	30		30-150
Decachlorobiphenyl	25	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	33		30-150
Decachlorobiphenyl	27	Q	30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-04
 Client ID: 132790
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/19/12 13:26
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/13/12 09:45
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/18/12 12:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/19/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/19/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1260	202		ug/kg	184	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	30		30-150
Decachlorobiphenyl	25	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	33		30-150
Decachlorobiphenyl	27	Q	30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-05
 Client ID: 132791
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/19/12 13:39
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/13/12 09:45
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/18/12 12:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/19/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/19/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	182	--	1
Aroclor 1221	ND		ug/kg	182	--	1
Aroclor 1232	ND		ug/kg	182	--	1
Aroclor 1242	ND		ug/kg	182	--	1
Aroclor 1248	ND		ug/kg	121	--	1
Aroclor 1260	180		ug/kg	121	--	1
Aroclor 1262	ND		ug/kg	60.6	--	1
Aroclor 1268	ND		ug/kg	60.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	84		30-150
Decachlorobiphenyl	72		30-150
2,4,5,6-Tetrachloro-m-xylene	91		30-150
Decachlorobiphenyl	72		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-05
 Client ID: 132791
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/19/12 13:39
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/13/12 09:45
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/18/12 12:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/19/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/19/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	ND		ug/kg	182	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	84		30-150
Decachlorobiphenyl	72		30-150
2,4,5,6-Tetrachloro-m-xylene	91		30-150
Decachlorobiphenyl	72		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-06
 Client ID: 132792
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/19/12 13:53
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/13/12 10:00
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/18/12 12:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/19/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/19/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	59.4	--	1
Aroclor 1221	ND		ug/kg	59.4	--	1
Aroclor 1232	ND		ug/kg	59.4	--	1
Aroclor 1242	ND		ug/kg	59.4	--	1
Aroclor 1248	ND		ug/kg	39.6	--	1
Aroclor 1254	66.5		ug/kg	59.4	--	1
Aroclor 1260	63.5		ug/kg	39.6	--	1
Aroclor 1262	ND		ug/kg	19.8	--	1
Aroclor 1268	ND		ug/kg	19.8	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	59		30-150
Decachlorobiphenyl	64		30-150
2,4,5,6-Tetrachloro-m-xylene	79		30-150
Decachlorobiphenyl	54		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-07 D
 Client ID: 132793
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/19/12 12:31
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/13/12 10:00
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/18/12 12:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/19/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/19/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	6090	--	40
Aroclor 1221	ND		ug/kg	6090	--	40
Aroclor 1232	ND		ug/kg	6090	--	40
Aroclor 1242	ND		ug/kg	6090	--	40
Aroclor 1248	ND		ug/kg	4060	--	40
Aroclor 1254	ND		ug/kg	6090	--	40
Aroclor 1260	ND		ug/kg	4060	--	40
Aroclor 1262	ND		ug/kg	2030	--	40
Aroclor 1268	ND		ug/kg	2030	--	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-08 D
 Client ID: 132794
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/20/12 13:33
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/13/12 10:15
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/18/12 12:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/19/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/19/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	25400	--	50
Aroclor 1221	ND		ug/kg	25400	--	50
Aroclor 1232	ND		ug/kg	25400	--	50
Aroclor 1242	ND		ug/kg	25400	--	50
Aroclor 1248	ND		ug/kg	16900	--	50
Aroclor 1262	ND		ug/kg	8470	--	50
Aroclor 1268	ND		ug/kg	8470	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-08 D
 Client ID: 132794
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/20/12 13:33
 Analyst: KB
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/13/12 10:15
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/18/12 12:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/19/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/19/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	685000		ug/kg	25400	--	50
Aroclor 1260	218000		ug/kg	16900	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-09 **D**
Client ID: 132795
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/19/12 22:40
Analyst: KB
Percent Solids: 100%

Date Collected: 04/13/12 10:20
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	105	--	2
Aroclor 1221	ND		ug/kg	105	--	2
Aroclor 1232	ND		ug/kg	105	--	2
Aroclor 1242	1670		ug/kg	105	--	2
Aroclor 1248	ND		ug/kg	69.8	--	2
Aroclor 1254	ND		ug/kg	105	--	2
Aroclor 1260	ND		ug/kg	69.8	--	2
Aroclor 1262	ND		ug/kg	34.9	--	2
Aroclor 1268	ND		ug/kg	34.9	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	44		30-150
Decachlorobiphenyl	39		30-150
2,4,5,6-Tetrachloro-m-xylene	38		30-150
Decachlorobiphenyl	44		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-10
Client ID: 132796
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/20/12 14:27
Analyst: SH
Percent Solids: 100%

Date Collected: 04/13/12 10:35
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/19/12 16:40
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/20/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/20/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	56.0	--	1
Aroclor 1221	ND		ug/kg	56.0	--	1
Aroclor 1232	ND		ug/kg	56.0	--	1
Aroclor 1242	ND		ug/kg	56.0	--	1
Aroclor 1248	ND		ug/kg	37.3	--	1
Aroclor 1254	ND		ug/kg	56.0	--	1
Aroclor 1260	ND		ug/kg	37.3	--	1
Aroclor 1262	ND		ug/kg	18.6	--	1
Aroclor 1268	ND		ug/kg	18.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	40		30-150
Decachlorobiphenyl	36		30-150
2,4,5,6-Tetrachloro-m-xylene	37		30-150
Decachlorobiphenyl	39		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-11
Client ID: 132797
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 09:43
Analyst: KB
Percent Solids: 100%

Date Collected: 04/13/12 10:45
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	54.9	--	1
Aroclor 1221	ND		ug/kg	54.9	--	1
Aroclor 1232	ND		ug/kg	54.9	--	1
Aroclor 1242	ND		ug/kg	54.9	--	1
Aroclor 1248	ND		ug/kg	36.6	--	1
Aroclor 1254	ND		ug/kg	54.9	--	1
Aroclor 1260	ND		ug/kg	36.6	--	1
Aroclor 1262	ND		ug/kg	18.3	--	1
Aroclor 1268	ND		ug/kg	18.3	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	49		30-150
Decachlorobiphenyl	40		30-150
2,4,5,6-Tetrachloro-m-xylene	41		30-150
Decachlorobiphenyl	43		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-12
Client ID: 132798
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 09:56
Analyst: KB
Percent Solids: 100%

Date Collected: 04/13/12 11:00
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	52.3	--	1
Aroclor 1221	ND		ug/kg	52.3	--	1
Aroclor 1232	ND		ug/kg	52.3	--	1
Aroclor 1242	ND		ug/kg	52.3	--	1
Aroclor 1248	ND		ug/kg	34.8	--	1
Aroclor 1254	ND		ug/kg	52.3	--	1
Aroclor 1260	ND		ug/kg	34.8	--	1
Aroclor 1262	ND		ug/kg	17.4	--	1
Aroclor 1268	ND		ug/kg	17.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	50		30-150
Decachlorobiphenyl	45		30-150
2,4,5,6-Tetrachloro-m-xylene	51		30-150
Decachlorobiphenyl	49		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-13 **D**
Client ID: 132799
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/19/12 22:59
Analyst: KB
Percent Solids: 98%

Date Collected: 04/13/12 11:15
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	1140	--	20
Aroclor 1221	ND		ug/kg	1140	--	20
Aroclor 1232	ND		ug/kg	1140	--	20
Aroclor 1242	ND		ug/kg	1140	--	20
Aroclor 1248	13500		ug/kg	759	--	20
Aroclor 1254	6480		ug/kg	1140	--	20
Aroclor 1260	ND		ug/kg	759	--	20
Aroclor 1262	ND		ug/kg	379	--	20
Aroclor 1268	ND		ug/kg	379	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-14
Client ID: 132800
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 10:20
Analyst: KB
Percent Solids: 98%

Date Collected: 04/13/12 11:30
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	338	--	6
Aroclor 1221	ND		ug/kg	338	--	6
Aroclor 1232	ND		ug/kg	338	--	6
Aroclor 1242	ND		ug/kg	338	--	6
Aroclor 1254	ND		ug/kg	338	--	6
Aroclor 1260	ND		ug/kg	225	--	6
Aroclor 1262	ND		ug/kg	112	--	6
Aroclor 1268	ND		ug/kg	112	--	6

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	45		30-150
Decachlorobiphenyl	37		30-150
2,4,5,6-Tetrachloro-m-xylene	41		30-150
Decachlorobiphenyl	44		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-14
Client ID: 132800
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 10:20
Analyst: KB
Percent Solids: 98%

Date Collected: 04/13/12 11:30
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	270		ug/kg	225	--	6

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	45		30-150
Decachlorobiphenyl	37		30-150
2,4,5,6-Tetrachloro-m-xylene	41		30-150
Decachlorobiphenyl	44		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-15
Client ID: 132801
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 10:33
Analyst: KB
Percent Solids: 98%

Date Collected: 04/13/12 11:45
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	165	--	3
Aroclor 1221	ND		ug/kg	165	--	3
Aroclor 1232	ND		ug/kg	165	--	3
Aroclor 1242	ND		ug/kg	165	--	3
Aroclor 1248	ND		ug/kg	110	--	3
Aroclor 1254	ND		ug/kg	165	--	3
Aroclor 1260	ND		ug/kg	110	--	3
Aroclor 1262	ND		ug/kg	55.0	--	3
Aroclor 1268	ND		ug/kg	55.0	--	3

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	45		30-150
Decachlorobiphenyl	39		30-150
2,4,5,6-Tetrachloro-m-xylene	41		30-150
Decachlorobiphenyl	46		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-16
Client ID: 132802
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 10:45
Analyst: KB
Percent Solids: 100%

Date Collected: 04/13/12 12:00
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	52.4	--	1
Aroclor 1221	ND		ug/kg	52.4	--	1
Aroclor 1232	ND		ug/kg	52.4	--	1
Aroclor 1242	ND		ug/kg	52.4	--	1
Aroclor 1254	ND		ug/kg	52.4	--	1
Aroclor 1260	ND		ug/kg	35.0	--	1
Aroclor 1262	ND		ug/kg	17.5	--	1
Aroclor 1268	ND		ug/kg	17.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	45		30-150
Decachlorobiphenyl	41		30-150
2,4,5,6-Tetrachloro-m-xylene	44		30-150
Decachlorobiphenyl	45		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-16
Client ID: 132802
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 10:45
Analyst: KB
Percent Solids: 100%

Date Collected: 04/13/12 12:00
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	107		ug/kg	35.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	45		30-150
Decachlorobiphenyl	41		30-150
2,4,5,6-Tetrachloro-m-xylene	44		30-150
Decachlorobiphenyl	45		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-17
Client ID: 132803
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 10:57
Analyst: KB
Percent Solids: 100%

Date Collected: 04/13/12 12:45
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	52.4	--	1
Aroclor 1221	ND		ug/kg	52.4	--	1
Aroclor 1232	ND		ug/kg	52.4	--	1
Aroclor 1242	ND		ug/kg	52.4	--	1
Aroclor 1254	ND		ug/kg	52.4	--	1
Aroclor 1260	ND		ug/kg	35.0	--	1
Aroclor 1262	ND		ug/kg	17.5	--	1
Aroclor 1268	ND		ug/kg	17.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	41		30-150
Decachlorobiphenyl	34		30-150
2,4,5,6-Tetrachloro-m-xylene	42		30-150
Decachlorobiphenyl	39		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-17
Client ID: 132803
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 10:57
Analyst: KB
Percent Solids: 100%

Date Collected: 04/13/12 12:45
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	187		ug/kg	35.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	41		30-150
Decachlorobiphenyl	34		30-150
2,4,5,6-Tetrachloro-m-xylene	42		30-150
Decachlorobiphenyl	39		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-18
 Client ID: 132804
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/18/12 11:10
 Analyst: KB
 Percent Solids: 100%

Date Collected: 04/13/12 13:00
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/16/12 08:20
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/18/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	53.0	--	1
Aroclor 1221	ND		ug/kg	53.0	--	1
Aroclor 1232	ND		ug/kg	53.0	--	1
Aroclor 1242	ND		ug/kg	53.0	--	1
Aroclor 1254	ND		ug/kg	53.0	--	1
Aroclor 1260	ND		ug/kg	35.3	--	1
Aroclor 1262	ND		ug/kg	17.7	--	1
Aroclor 1268	ND		ug/kg	17.7	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	33		30-150
Decachlorobiphenyl	29	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	33		30-150
Decachlorobiphenyl	32		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-18
Client ID: 132804
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 11:10
Analyst: KB
Percent Solids: 100%

Date Collected: 04/13/12 13:00
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	199		ug/kg	35.3	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	33		30-150
Decachlorobiphenyl	29	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	33		30-150
Decachlorobiphenyl	32		30-150

Project Name: Not Specified

Lab Number: L1206478

Project Number: 18257

Report Date: 04/20/12

SAMPLE RESULTS

Lab ID: L1206478-19 D
 Client ID: 132805
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/19/12 23:11
 Analyst: KB
 Percent Solids: 100%

Date Collected: 04/13/12 13:15
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/16/12 08:20
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/18/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	1020	--	20
Aroclor 1221	ND		ug/kg	1020	--	20
Aroclor 1232	ND		ug/kg	1020	--	20
Aroclor 1242	ND		ug/kg	1020	--	20
Aroclor 1254	ND		ug/kg	1020	--	20
Aroclor 1260	ND		ug/kg	681	--	20
Aroclor 1262	ND		ug/kg	341	--	20
Aroclor 1268	ND		ug/kg	341	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-19 **D**
Client ID: 132805
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/19/12 23:11
Analyst: KB
Percent Solids: 100%

Date Collected: 04/13/12 13:15
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1248	15000		ug/kg	681	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-20
Client ID: 132806
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 11:35
Analyst: KB
Percent Solids: 95%

Date Collected: 04/13/12 13:45
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	166	--	3
Aroclor 1221	ND		ug/kg	166	--	3
Aroclor 1232	ND		ug/kg	166	--	3
Aroclor 1242	ND		ug/kg	166	--	3
Aroclor 1248	ND		ug/kg	111	--	3
Aroclor 1254	ND		ug/kg	166	--	3
Aroclor 1260	ND		ug/kg	111	--	3
Aroclor 1262	ND		ug/kg	55.5	--	3
Aroclor 1268	ND		ug/kg	55.5	--	3

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	49		30-150
Decachlorobiphenyl	50		30-150
2,4,5,6-Tetrachloro-m-xylene	49		30-150
Decachlorobiphenyl	57		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-21
Client ID: 132807
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 11:47
Analyst: KB
Percent Solids: 96%

Date Collected: 04/13/12 14:00
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	53.9	--	1
Aroclor 1221	ND		ug/kg	53.9	--	1
Aroclor 1232	ND		ug/kg	53.9	--	1
Aroclor 1242	ND		ug/kg	53.9	--	1
Aroclor 1248	ND		ug/kg	35.9	--	1
Aroclor 1254	ND		ug/kg	53.9	--	1
Aroclor 1260	ND		ug/kg	35.9	--	1
Aroclor 1262	ND		ug/kg	18.0	--	1
Aroclor 1268	ND		ug/kg	18.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	46		30-150
Decachlorobiphenyl	42		30-150
2,4,5,6-Tetrachloro-m-xylene	46		30-150
Decachlorobiphenyl	46		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-22
Client ID: 132808
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 11:59
Analyst: KB
Percent Solids: 98%

Date Collected: 04/13/12 14:55
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	160	--	3
Aroclor 1221	ND		ug/kg	160	--	3
Aroclor 1232	ND		ug/kg	160	--	3
Aroclor 1242	ND		ug/kg	160	--	3
Aroclor 1248	ND		ug/kg	107	--	3
Aroclor 1254	ND		ug/kg	160	--	3
Aroclor 1260	ND		ug/kg	107	--	3
Aroclor 1262	ND		ug/kg	53.4	--	3
Aroclor 1268	ND		ug/kg	53.4	--	3

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	58		30-150
Decachlorobiphenyl	56		30-150
2,4,5,6-Tetrachloro-m-xylene	56		30-150
Decachlorobiphenyl	67		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-23
Client ID: 132809
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 12:12
Analyst: KB
Percent Solids: 100%

Date Collected: 04/13/12 14:55
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	54.0	--	1
Aroclor 1221	ND		ug/kg	54.0	--	1
Aroclor 1232	ND		ug/kg	54.0	--	1
Aroclor 1242	ND		ug/kg	54.0	--	1
Aroclor 1248	ND		ug/kg	36.0	--	1
Aroclor 1254	ND		ug/kg	54.0	--	1
Aroclor 1260	ND		ug/kg	36.0	--	1
Aroclor 1262	ND		ug/kg	18.0	--	1
Aroclor 1268	ND		ug/kg	18.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	40		30-150
Decachlorobiphenyl	36		30-150
2,4,5,6-Tetrachloro-m-xylene	42		30-150
Decachlorobiphenyl	41		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-24
Client ID: 132810
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 13:38
Analyst: KB
Percent Solids: 98%

Date Collected: 04/13/12 15:05
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	164	--	3
Aroclor 1221	ND		ug/kg	164	--	3
Aroclor 1232	ND		ug/kg	164	--	3
Aroclor 1242	ND		ug/kg	164	--	3
Aroclor 1248	ND		ug/kg	109	--	3
Aroclor 1254	ND		ug/kg	164	--	3
Aroclor 1260	ND		ug/kg	109	--	3
Aroclor 1262	ND		ug/kg	54.6	--	3
Aroclor 1268	ND		ug/kg	54.6	--	3

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	80		30-150
Decachlorobiphenyl	81		30-150
2,4,5,6-Tetrachloro-m-xylene	76		30-150
Decachlorobiphenyl	91		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-25
 Client ID: 132811
 Sample Location: 100 ARLINGTON
 Matrix: Solid
 Analytical Method: 1,8082
 Analytical Date: 04/18/12 13:50
 Analyst: KB
 Percent Solids: 100%

Date Collected: 04/13/12 15:10
 Date Received: 04/13/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/16/12 08:20
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/18/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	54.2	--	1
Aroclor 1221	ND		ug/kg	54.2	--	1
Aroclor 1232	ND		ug/kg	54.2	--	1
Aroclor 1242	ND		ug/kg	54.2	--	1
Aroclor 1248	ND		ug/kg	36.2	--	1
Aroclor 1254	ND		ug/kg	54.2	--	1
Aroclor 1260	ND		ug/kg	36.2	--	1
Aroclor 1262	ND		ug/kg	18.1	--	1
Aroclor 1268	ND		ug/kg	18.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	47		30-150
Decachlorobiphenyl	43		30-150
2,4,5,6-Tetrachloro-m-xylene	48		30-150
Decachlorobiphenyl	46		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-26
Client ID: 132812
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 14:03
Analyst: KB
Percent Solids: 96%

Date Collected: 04/13/12 15:25
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	583	--	10
Aroclor 1221	ND		ug/kg	583	--	10
Aroclor 1232	ND		ug/kg	583	--	10
Aroclor 1242	ND		ug/kg	583	--	10
Aroclor 1248	ND		ug/kg	389	--	10
Aroclor 1254	ND		ug/kg	583	--	10
Aroclor 1260	ND		ug/kg	389	--	10
Aroclor 1262	ND		ug/kg	194	--	10
Aroclor 1268	ND		ug/kg	194	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-27
Client ID: 132813
Sample Location: 100 ARLINGTON
Matrix: Solid
Analytical Method: 1,8082
Analytical Date: 04/18/12 14:15
Analyst: KB
Percent Solids: 96%

Date Collected: 04/13/12 15:35
Date Received: 04/13/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/16/12 08:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 04/18/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	55.1	--	1
Aroclor 1221	ND		ug/kg	55.1	--	1
Aroclor 1232	ND		ug/kg	55.1	--	1
Aroclor 1242	ND		ug/kg	55.1	--	1
Aroclor 1248	ND		ug/kg	36.7	--	1
Aroclor 1254	ND		ug/kg	55.1	--	1
Aroclor 1260	ND		ug/kg	36.7	--	1
Aroclor 1262	ND		ug/kg	18.4	--	1
Aroclor 1268	ND		ug/kg	18.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	31		30-150
Decachlorobiphenyl	34		30-150
2,4,5,6-Tetrachloro-m-xylene	31		30-150
Decachlorobiphenyl	40		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082
 Analytical Date: 04/18/12 12:49
 Analyst: KB

Extraction Method: EPA 3540C
 Extraction Date: 04/16/12 08:20
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/18/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/18/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 09,11-27 Batch: WG529304-1					
Aroclor 1016	ND		ug/kg	53.7	--
Aroclor 1221	ND		ug/kg	53.7	--
Aroclor 1232	ND		ug/kg	53.7	--
Aroclor 1242	ND		ug/kg	53.7	--
Aroclor 1248	ND		ug/kg	35.8	--
Aroclor 1254	ND		ug/kg	53.7	--
Aroclor 1260	ND		ug/kg	35.8	--
Aroclor 1262	ND		ug/kg	17.9	--
Aroclor 1268	ND		ug/kg	17.9	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	51		30-150
Decachlorobiphenyl	47		30-150
2,4,5,6-Tetrachloro-m-xylene	51		30-150
Decachlorobiphenyl	50		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082
 Analytical Date: 04/19/12 14:20
 Analyst: KB

Extraction Method: EPA 3540C
 Extraction Date: 04/18/12 12:00
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/19/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/19/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 01-08 Batch: WG529976-1					
Aroclor 1016	ND		ug/kg	54.4	--
Aroclor 1221	ND		ug/kg	54.4	--
Aroclor 1232	ND		ug/kg	54.4	--
Aroclor 1242	ND		ug/kg	54.4	--
Aroclor 1248	ND		ug/kg	36.3	--
Aroclor 1254	ND		ug/kg	54.4	--
Aroclor 1260	ND		ug/kg	36.3	--
Aroclor 1262	ND		ug/kg	18.1	--
Aroclor 1268	ND		ug/kg	18.1	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	85		30-150
Decachlorobiphenyl	84		30-150
2,4,5,6-Tetrachloro-m-xylene	84		30-150
Decachlorobiphenyl	77		30-150

Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082
 Analytical Date: 04/20/12 14:39
 Analyst: SH

Extraction Method: EPA 3540C
 Extraction Date: 04/19/12 16:40
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 04/20/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 04/20/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 10 Batch: WG530350-1					
Aroclor 1016	ND		ug/kg	58.6	--
Aroclor 1221	ND		ug/kg	58.6	--
Aroclor 1232	ND		ug/kg	58.6	--
Aroclor 1242	ND		ug/kg	58.6	--
Aroclor 1248	ND		ug/kg	39.1	--
Aroclor 1254	ND		ug/kg	58.6	--
Aroclor 1260	ND		ug/kg	39.1	--
Aroclor 1262	ND		ug/kg	19.5	--
Aroclor 1268	ND		ug/kg	19.5	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	90		30-150
Decachlorobiphenyl	94		30-150
2,4,5,6-Tetrachloro-m-xylene	86		30-150
Decachlorobiphenyl	100		30-150

Matrix Spike Analysis

Batch Quality Control

Project Name: Not Specified

Project Number: 18257

Lab Number: L1206478

Report Date: 04/20/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 09,11-27 QC Batch ID: WG529304-4 WG529304-5 QC Sample: L1206478-16 Client ID: 132802												
Aroclor 1016	ND	592	150	25	Q	389	65		40-140	89	Q	50
Aroclor 1260	ND	592	282	48		335	56		40-140	17		50

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
2,4,5,6-Tetrachloro-m-xylene	17	Q	50		30-150
Decachlorobiphenyl	39		44		30-150
2,4,5,6-Tetrachloro-m-xylene	17	Q	50		30-150
Decachlorobiphenyl	43		49		30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: Not Specified

Project Number: 18257

Lab Number: L1206478

Report Date: 04/20/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 09,11-27 Batch: WG529304-2 WG529304-3								
Aroclor 1016	50		42		40-140	17		50
Aroclor 1260	55		46		40-140	18		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	51		42		30-150
Decachlorobiphenyl	45		39		30-150
2,4,5,6-Tetrachloro-m-xylene	49		41		30-150
Decachlorobiphenyl	48		41		30-150

PCB by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG529976-2 WG529976-3								
Aroclor 1016	74		87		40-140	16		50
Aroclor 1260	74		89		40-140	18		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	83		95		30-150
Decachlorobiphenyl	73		83		30-150
2,4,5,6-Tetrachloro-m-xylene	94		93		30-150
Decachlorobiphenyl	79		80		30-150

Lab Control Sample Analysis**Batch Quality Control****Project Name:** Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 10 Batch: WG530350-2 WG530350-3								
Aroclor 1016	94		96		40-140	2		50
Aroclor 1260	99		100		40-140	1		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	109		97		30-150
Decachlorobiphenyl	115		102		30-150
2,4,5,6-Tetrachloro-m-xylene	102		91		30-150
Decachlorobiphenyl	120		107		30-150

INORGANICS & MISCELLANEOUS

Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1206478**Report Date:** 04/20/12**SAMPLE RESULTS****Lab ID:** L1206478-09**Client ID:** 132795**Sample Location:** 100 ARLINGTON**Matrix:** Solid**Date Collected:** 04/13/12 10:20**Date Received:** 04/13/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified

Project Number: 18257

Lab Number: L1206478

Report Date: 04/20/12

SAMPLE RESULTS

Lab ID: L1206478-10

Client ID: 132796

Sample Location: 100 ARLINGTON

Matrix: Solid

Date Collected: 04/13/12 10:35

Date Received: 04/13/12

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1206478**Report Date:** 04/20/12**SAMPLE RESULTS**

Lab ID: L1206478-11
Client ID: 132797
Sample Location: 100 ARLINGTON
Matrix: Solid

Date Collected: 04/13/12 10:45
Date Received: 04/13/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1206478**Report Date:** 04/20/12**SAMPLE RESULTS****Lab ID:** L1206478-12**Client ID:** 132798**Sample Location:** 100 ARLINGTON**Matrix:** Solid**Date Collected:** 04/13/12 11:00**Date Received:** 04/13/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified

Lab Number: L1206478

Project Number: 18257

Report Date: 04/20/12

SAMPLE RESULTS

Lab ID: L1206478-13

Date Collected: 04/13/12 11:15

Client ID: 132799

Date Received: 04/13/12

Sample Location: 100 ARLINGTON

Field Prep: Not Specified

Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	98		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified

Lab Number: L1206478

Project Number: 18257

Report Date: 04/20/12

SAMPLE RESULTS

Lab ID: L1206478-14
 Client ID: 132800
 Sample Location: 100 ARLINGTON
 Matrix: Solid

Date Collected: 04/13/12 11:30
 Date Received: 04/13/12
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	98		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1206478**Report Date:** 04/20/12**SAMPLE RESULTS****Lab ID:** L1206478-15**Client ID:** 132801**Sample Location:** 100 ARLINGTON**Matrix:** Solid**Date Collected:** 04/13/12 11:45**Date Received:** 04/13/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	98		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1206478**Report Date:** 04/20/12**SAMPLE RESULTS****Lab ID:** L1206478-16**Client ID:** 132802**Sample Location:** 100 ARLINGTON**Matrix:** Solid**Date Collected:** 04/13/12 12:00**Date Received:** 04/13/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1206478**Report Date:** 04/20/12**SAMPLE RESULTS****Lab ID:** L1206478-17**Client ID:** 132803**Sample Location:** 100 ARLINGTON**Matrix:** Solid**Date Collected:** 04/13/12 12:45**Date Received:** 04/13/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1206478**Report Date:** 04/20/12**SAMPLE RESULTS****Lab ID:** L1206478-18**Client ID:** 132804**Sample Location:** 100 ARLINGTON**Matrix:** Solid**Date Collected:** 04/13/12 13:00**Date Received:** 04/13/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1206478**Report Date:** 04/20/12**SAMPLE RESULTS****Lab ID:** L1206478-19**Client ID:** 132805**Sample Location:** 100 ARLINGTON**Matrix:** Solid**Date Collected:** 04/13/12 13:15**Date Received:** 04/13/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified

Lab Number: L1206478

Project Number: 18257

Report Date: 04/20/12

SAMPLE RESULTS

Lab ID: L1206478-20

Date Collected: 04/13/12 13:45

Client ID: 132806

Date Received: 04/13/12

Sample Location: 100 ARLINGTON

Field Prep: Not Specified

Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	95		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified

Lab Number: L1206478

Project Number: 18257

Report Date: 04/20/12

SAMPLE RESULTS

Lab ID: L1206478-21
 Client ID: 132807
 Sample Location: 100 ARLINGTON
 Matrix: Solid

Date Collected: 04/13/12 14:00
 Date Received: 04/13/12
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1206478**Report Date:** 04/20/12**SAMPLE RESULTS****Lab ID:** L1206478-22**Client ID:** 132808**Sample Location:** 100 ARLINGTON**Matrix:** Solid**Date Collected:** 04/13/12 14:55**Date Received:** 04/13/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	98		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1206478**Report Date:** 04/20/12**SAMPLE RESULTS****Lab ID:** L1206478-23**Client ID:** 132809**Sample Location:** 100 ARLINGTON**Matrix:** Solid**Date Collected:** 04/13/12 14:55**Date Received:** 04/13/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1206478**Report Date:** 04/20/12**SAMPLE RESULTS****Lab ID:** L1206478-24**Client ID:** 132810**Sample Location:** 100 ARLINGTON**Matrix:** Solid**Date Collected:** 04/13/12 15:05**Date Received:** 04/13/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	98		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1206478**Report Date:** 04/20/12**SAMPLE RESULTS****Lab ID:** L1206478-25**Client ID:** 132811**Sample Location:** 100 ARLINGTON**Matrix:** Solid**Date Collected:** 04/13/12 15:10**Date Received:** 04/13/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	100		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified

Lab Number: L1206478

Project Number: 18257

Report Date: 04/20/12

SAMPLE RESULTS

Lab ID: L1206478-26

Date Collected: 04/13/12 15:25

Client ID: 132812

Date Received: 04/13/12

Sample Location: 100 ARLINGTON

Field Prep: Not Specified

Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Project Name: Not Specified

Project Number: 18257

Lab Number: L1206478

Report Date: 04/20/12

SAMPLE RESULTS

Lab ID: L1206478-27

Client ID: 132813

Sample Location: 100 ARLINGTON

Matrix: Solid

Date Collected: 04/13/12 15:35

Date Received: 04/13/12

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96		%	0.10	NA	1	-	04/14/12 00:10	30,2540G	RD



Lab Duplicate Analysis
Batch Quality Control**Project Name:** Not Specified**Project Number:** 18257**Lab Number:** L1206478**Report Date:** 04/20/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 09-27 QC Batch ID: WG529140-1 QC Sample: L1206478-16 Client ID: 132802						
Solids, Total	100	100	%	0		20

Project Name: Not Specified

Lab Number: L1206478

Project Number: 18257

Report Date: 04/20/12

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

B Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1206478-01A	Bag	B	N/A	2.6	Y	Absent	PCB-8082LL-3540C(14)
L1206478-02A	Bag	B	N/A	2.6	Y	Absent	PCB-8082LL-3540C(14)
L1206478-03A	Bag	B	N/A	2.6	Y	Absent	PCB-8082LL-3540C(14)
L1206478-04A	Bag	B	N/A	2.6	Y	Absent	PCB-8082LL-3540C(14)
L1206478-05A	Bag	B	N/A	2.6	Y	Absent	PCB-8082LL-3540C(14)
L1206478-06A	Bag	B	N/A	2.6	Y	Absent	PCB-8082LL-3540C(14)
L1206478-07A	Bag	B	N/A	2.6	Y	Absent	PCB-8082LL-3540C(14)
L1206478-08A	Bag	B	N/A	2.6	Y	Absent	PCB-8082LL-3540C(14)
L1206478-09A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-10A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-11A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-12A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-13A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-14A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-15A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-16A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-17A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-18A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-19A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-20A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-21A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-22A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-23A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-24A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-25A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)
L1206478-26A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)

*Values in parentheses indicate holding time in days



Project Name: Not Specified**Project Number:** 18257**Lab Number:** L1206478**Report Date:** 04/20/12**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1206478-27A	Amber 120ml unpreserved	A	N/A	11.8	Y	Absent	TS(7),PCB-8082LL-3540C(14)

*Values in parentheses indicate holding time in days

Project Name: Not Specified

Lab Number: L1206478

Project Number: 18257

Report Date: 04/20/12

GLOSSARY

Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- | | |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A | - Spectra identified as "Aldol Condensation Product". |
| B | - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. |
| C | - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses. |
| D | - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte. |
| E | - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument. |
| G | - The concentration may be biased high due to matrix interferences (i.e., co-elution) with non-target compound(s). The result should be considered estimated. |
| H | - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection. |
| I | - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference. |
| M | - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte. |
| NJ | - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search. |

Report Format: Data Usability Report



Project Name: Not Specified**Lab Number:** L1206478**Project Number:** 18257**Report Date:** 04/20/12**Data Qualifiers**

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: Not Specified
Project Number: 18257

Lab Number: L1206478
Report Date: 04/20/12

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised January 30, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3550B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 6020A, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. **NELAP Accredited.**
Drinking Water (Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 1312, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE. Organic Parameters: EPA 3510C, 3005A, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 802A, 8151A, 8260B, 8270C, 8270D, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 3060A, 6010B, 6010C, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH₃-H. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S₂⁻D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3005A, 3015, 1312, 6010B, 6010C, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X. Organic Parameters: EPA 8260B)

Solid & Hazardous Waste (Inorganic Parameters: EPA 3050B, 1311, 1312, 6010B, 6010C, 9030B, 9010B, 9012A, 9014. Organic Parameters: EPA 5035, 5030B, 8260B.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO₃-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A**: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C**: Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625**: 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix, SO₄ in a soil matrix.

DATE: 13 APR 2012

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: ALPHA ANALYTICAL

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 18257, 100 ARLINGTON

The cost of this analysis will be covered by EH&E Purchase Order # _____

For EH & E Data Coordinator - URGENT DATA ☐

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER: Time/Date/Vol.
132787	BULK	EPA 8082 PCB'S w/ SOXLET EXTRACTION	13 APR 2012 0930
788			0930
789			0930
790			0945
791			0945
792			1000
793			1000
794			1015
795			1020
796			1035
797			1045
798			1100
799			1115
800			1130
801			1145
132802		MATRIX SPIKE & DUPLICATE	1200

Special instructions:

☒ Standard turn around time

☐ Rush by _____ date/time

☐ Other _____

☐ Fax results 781-247-4305

☐ RETURN SAMPLES

☐ Electronic transfer - datacoordinator@ehinc.com

☒ Additional report recipient CCAMP@SANOCHEINC.COM

Each signatory please return one copy of this form to the above address

Relinquished by: John S. Brown of Environmental Health & Engineering, Inc.

Date: 13 APR 2012

Received by: John Man of (company name) Alpha

Date: 4/13/12 1825

Relinquished by: _____ of (company name) _____

Date: _____

Received by: _____ of (company name) _____

Date: _____

Relinquished by: _____ of (company name) _____

Date: _____

Received by: _____ of (company name) _____

Date: _____

Lab Data

Received by: _____ of Environmental Health & Engineering, Inc.

Date: _____

Page 1 of 2

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: ALPHA ANALYTICAL

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 18257 100 ARLINGTON

The cost of this analysis will be covered by EH&E Purchase Order # _____

For EH & E Data Coordinator - URGENT DATA ☐

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
132803	BULK	EPA 8082 PCBs w/ SOXLET EXTRACTION	13 APR 2012 1245
804			1300
805			1315
806			1345
807			1400
808			1455
809			1455
810			1505
811			1510
812			1505
132813			1535
<div style="text-align: center;">X</div>			

Special instructions:

- ☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other _____
☐ Fax results 781-247-4305 ☐ Electronic transfer - datacoordinator@ehinc.com
☐ RETURN SAMPLES ☐ Additional report recipient ABESS@EHEINC.COM, CCAMP@EHEINC.COM

Each signatory please return one copy of this form to the above address

Relinquished by: HSB of Environmental Health & Engineering, Inc. Date: 13 APR 2012
Received by: Kati Mun of (company name) Alpha Date: 13 APR 2012 1825
Relinquished by: _____ of (company name) _____ Date: _____
Received by: _____ of (company name) _____ Date: _____
Relinquished by: _____ of (company name) _____ Date: _____
Received by: _____ of (company name) _____ Date: _____
Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 2 of 2

APPENDIX C

**COVER LETTERS,
FOR NOTIFYING STATE AND LOCAL AGENCIES**



Environmental Health
& Engineering, Inc.

117 Fourth Avenue
Needham, MA
02494-2725

TEL 800-825-5343
781-247-4300
FAX 781-247-4305

www.eheinc.com

July 16, 2012

Mr. Thomas Plant
Boston Public Health Commission
Environmental Health Office
1010 Massachusetts Avenue, Second Floor
Boston, MA 02118

**RE: Written Notification for Removal of PCB- Containing Building Materials for
100 Arlington Street, Boston, Massachusetts (EH&E 18257)**

Dear Mr. Plant:

To fulfill notification requirements of the U.S. Environmental Protection Agency (EPA) Title 40 Code of Federal Regulations (CFR) 761.61(a)(3)(i), please find the enclosed work plan for the removal of polychlorinated biphenyl (PCB)-containing building materials located at 100 Arlington Street, Boston, Massachusetts.

If you have any questions, please feel free to contact me at 1-800-TALK EHE (1-800-825-5343).

Sincerely,

A handwritten signature in black ink that reads "Cynthia D. Campisano". The signature is fluid and cursive, with the first name "Cynthia" and last name "Campisano" clearly legible, and a middle initial "D." in between.

Cynthia Campisano, PG, CHMM
Senior Scientist/Project Manager

Enclosure

(Via FedEx Overnight Delivery)



Environmental Health
& Engineering, Inc.

117 Fourth Avenue
Needham, MA
02494-2725

TEL 800-825-5343
781-247-4300
FAX 781-247-4305

www.eheinc.com

July 16, 2012

Mr. Michael Hurley
Bureau of Waste Prevention
Massachusetts Department of Environmental Protection
One Winter Street
Boston, MA 02108

**RE: Written Notification for Removal of PCB-Containing Building Materials for
100 Arlington Street, Boston, Massachusetts (EH&E 18257)**

Dear Mr. Hurley:

To fulfill notification requirements of the U.S. Environmental Protection Agency (EPA) Title 40 Code of Federal Regulations (CFR) 761.61(a)(3)(i), please find the enclosed work plan for the removal of polychlorinated biphenyl (PCB)-containing building materials located at 100 Arlington Street, Boston, Massachusetts.

If you have any questions, please feel free to contact me at 1-800-TALK EHE (1-800-825-5343).

Sincerely,

A handwritten signature in dark ink, reading "Cynthia D. Campisano". The signature is fluid and cursive, with the first name "Cynthia" and last name "Campisano" clearly legible, and a middle initial "D." in between.

Cynthia Campisano, PG, CHMM
Senior Scientist/Project Manager

Enclosure

(Via FedEx Overnight Delivery)

APPENDIX D

SIGNED CERTIFICATION LETTER PER 761(A)(3)(E)

100 Arlington Acquisition Company LLC

July 16, 2012

Ms. Kimberly N. Tisa
PCB Coordinator
U.S. Environmental Protection Agency
Five Post Office Square, Suite 100
Mail Code OSRR07-2
Boston, MA 02114-3912

**RE: Written Certification for Document Filing for Remediation of PCB Caulking,
100 Arlington Street, Boston, Massachusetts.**

Dear Ms. Tisa:

In accordance with §761.61(a)(3)(E), the owner, 100 Arlington Acquisition Company, LLC, will maintain a record of filings pertaining to the project involving the removal of PCB-containing building materials prior to renovation of the building at 100 Arlington Street, Boston, Massachusetts. The information to be kept on file will include; sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess PCB contamination. If alternate methods for chemical extraction and chemical analysis for site characterization are used, an addendum to this certification will be provided to the U.S. Environmental Protection Agency, and shall include a statement that such a method will be used, and that a comparison study which meets or exceeds the requirements of Subpart Q, §761.326, Conducting the comparison study, and for which records are on file, has been completed prior to verification sampling. These filings will be available for EPA inspection and will be kept at the following address below.

100 Arlington Acquisition Company, LLC
c/o The Congress Group Inc.
33 Arch Street, 11th Floor
Boston, MA 02110

Sincerely,



Dean F. Stratouly
Authorized Representative
100 Arlington Acquisition Company, LLC

APPENDIX E
PHOTOGRAPHS

100 Arlington Street – Site Photos

Photo 1 – Location L9B



Photo 2 – Location L11A



Photo 3 – Location L13A



Photo 4 – Location L13B



Photo 5 – Repair Location



Photo 6 – Typical Second Row of Bricks Location



Photo 7 – Typical Window Opening – Level 3



Photo 8 – Vertical Caulk Joint between Limestone Corner Stones and Brick Façade

